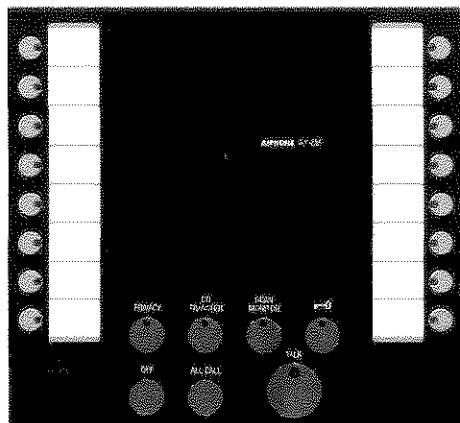


## **Product Specs**

Pomeroy offers the following manufacturer product specifications materials immediately following this page.

AX-8M

**DESCRIPTION:**

The AX-8M is an Audio only master station and can be one of the up to 8 masters supported in the AX Integrated Audio & Video Security system.

Each AX-8M master station can initiate and answer calls from up to 7 additional master stations and up to 8 door or sub stations. The master can be expanded with AX-16SW add-on selectors for a maximum capacity of 120 door / sub stations. Its streamline design is mountable on a wall or desk.

When a door or sub station calls, a tremolo tone rings. To answer the call, simply press the TALK button once and speak hands-free, or Press and Hold the TALK button to use as push-to-talk, release-to-listen. If access control is included, simply press the "key" button and the associated electric strike or magnetic lock will be activated. The AX-8M can answer the call from any audio only or audio/video door/sub on the system.

Each master station connects via CAT-5e cable homerun to the AX Central Exchange Unit. Feature and operation variables are set with the system set-up software and uploaded to the CEU.

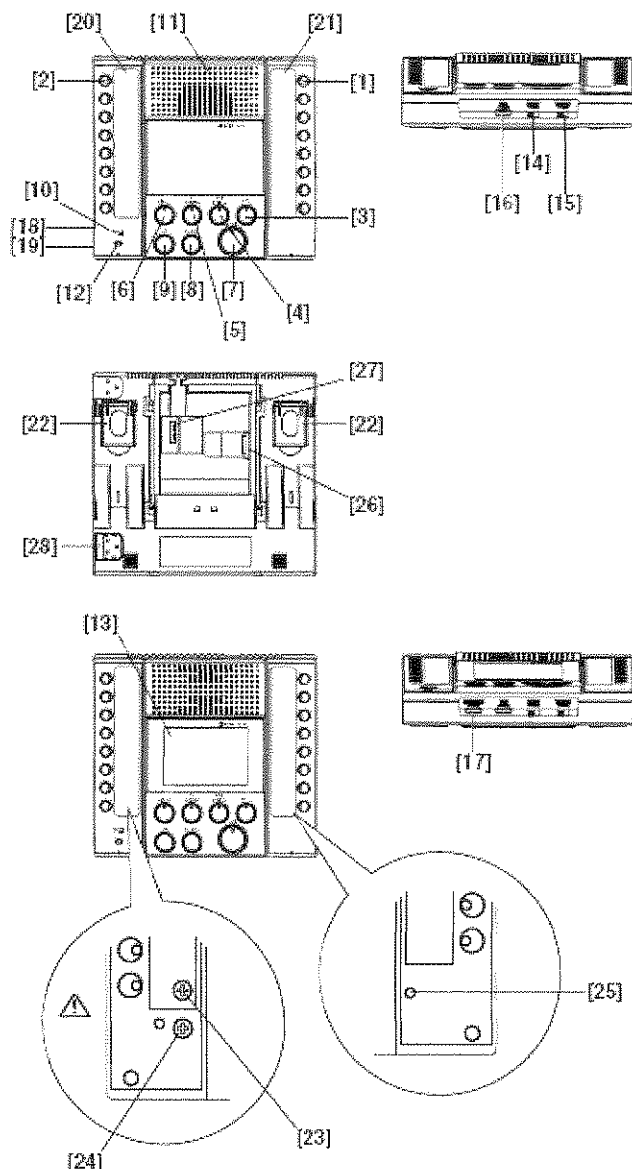
**FEATURES:**

- 8 master station channels
- 8 door / sub station channels
- LED and call tone annunciation for programmable length or infinite call-in
- Hands-free VOX communication or Push-to-Talk
- All Call to other master stations
- Selective calling to any station in the system
- Add-on selectors in increments of 16 channels for max. capacity of 120 door / sub stations (CEU capacity also req'd)
- Privacy prevents other masters from listening in
- CO Transfer allows calls to transfer to a telephone number (Viking K-1900-5 required)
- Scan Monitor allows listening to door / sub stations in programmed time increments
- Door release button activates door strike or magnetic lock (selectable N/O or N/C contacts from CEU)
- 3.5mm speaker & mic jacks for computer-style headset or handset connection
- Tone and volume adjustments for open voice and headset communication
- Option connector for call extension or footswitch operation of TALK function

# AX-8M

## Audio Master Station for AX Series

### FEATURE CALL-OUTS:



### FEATURE CALL-OUT DEFINITIONS:

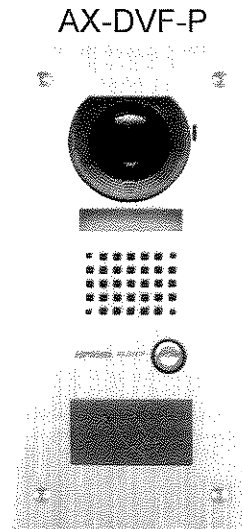
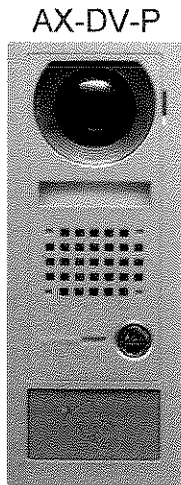
- [1] Door station selector button w/LED
- [2] Master station selector button w/LED
- [3] Door release button
- [4] Scan monitor button w/LED
- [5] CO transfer button w/LED
- [6] Privacy button w/LED
- [7] TALK button w/LED
- [8] ALL CALL button
- [9] OFF button (standby)
- [10] Occupied LED
- [11] Speaker
- [12] Microphone
- [14] Receive volume control switch (low, med, high)
- [15] Transmit volume control switch (low, med, high)
- [16] Tone volume control
- [18] Headset receiver jack
- [19] Headset microphone jack
- [20] Master station directory card / card cover
- [21] Door station directory card / card cover
- [22] Desktop stand
- [23] Headset receiver volume control
- [24] Headset microphone volume control
- [25] Reset switch
- [26] RJ45 jack for wiring to CEU
- [27] Optional connector input
- [28] Connector for AX-16SW add-on selector

### SPECIFICATIONS:

- Power Source: 24V DC Supplied from CEU
- Call Tone: Tremolo ring tone & blinking LED
- Communication: Open voice hands-free (VOX or Push-to-Talk)
- Headset Jack: 3.5mm mic and speaker jacks
- Calling Capacity: Up to 7 additional master stations  
Up to 120 door / sub stations
- Mounting: Desk with flip-up stands, or wall mount with provided metal bracket
- Wall mount box: 2-gang electrical box or ring
- Wiring: CAT-5e homerun to CEU
- Wiring Connection: RJ45 jack
- Housing: ABS Resin
- Color: Black
- Operating Temp: 32 – 104° F (0 ~ 40° C)
- Dimensions (HxWxD): 6-7/8" x 7-5/8" x 1-7/8"  
(175 x 194 x 48 mm)
- Weight: 1.0 lbs (450g)

## AX-DV-P, AX-DVF-P

### Video Door Stations for AX Series



#### DESCRIPTION:

The AX-DV-P is a surface mount color video door station for the AX Series. The AX-DVF-P is a flush mount color video door station. Both units have a built in HID® ProxPoint® Plus card reader (6005B). The reader connects to an access control system while the camera connects directly to the AX Central Exchange Unit using CAT-5e wire with an RJ45 jack.

The AX-DV-P has an aluminum diecast cover and the AX-DVF-P has a stainless steel faceplate. Both units include a camera, microphone, speaker, call button, and HID® reader. Tamper resistant screws are provided for mounting.

When the call button on the door station is pushed, the master station(s) ring and the video monitor comes on with the image from the door station's camera. The master station user then pushes the "TALK" button to initiate communication. The person at the door station speaks hands-free. If the visitor has valid credentials, he/she swipes his/her card and the access system controls the door.

The AX door stations can be located up to 980' from the AX CEU and wired with CAT-5e cable. Additional equipment is available to interface with third party hardware for transmission over fiber optic cable or an IP network.

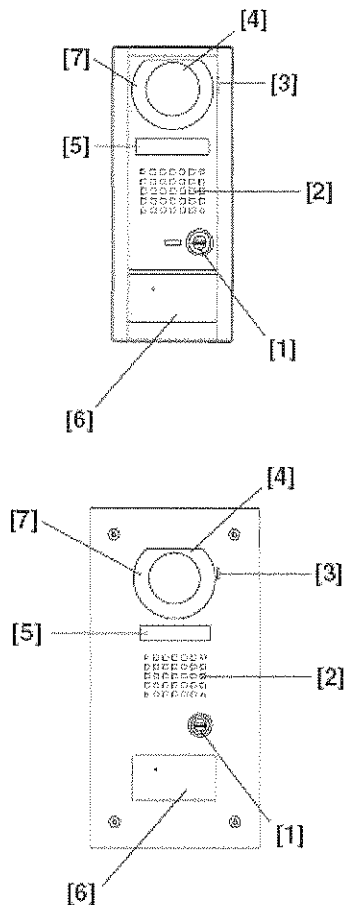
#### FEATURES:

- Color video camera with audio intercom and embedded card reader
- HID® ProxPoint® Plus reader (6005B) – Requires separate wiring and host controller
- 2-way hands-free voice communication with AX master station
- Call button to initiate call to master(s)
- White LED for low light conditions
- RJ45 jack for easy CAT-5e connection
- Surface (AX-DV-P) or flush mount (AX-DVF-P) styles available
- 980' wiring distance from CEU on CAT-5e cable

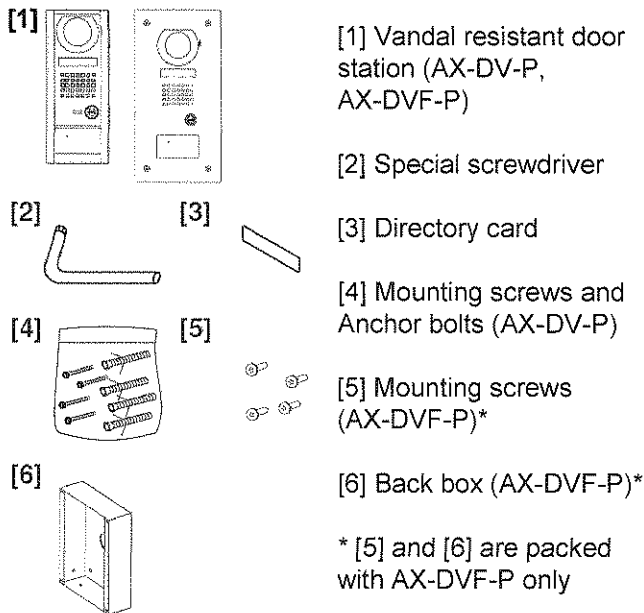
# AX-DV-P, AX-DVF-P

## Video Door Stations for AX Series

### FEATURE CALL-OUTS:



### PACKAGE CONTENTS:



### FEATURE CALL-OUT DEFINITIONS:

- [1] Call Button
- [2] Speaker
- [3] Microphone
- [4] Camera
- [5] Directory Card
- [6] Proximity card reader (HID® 6005B)
- [7] White LED

### SPECIFICATIONS:

Power Source: 24V DC Supplied from CEU

Wiring Connection: RJ45 jack (CAT-5e)

Communication: Hands-free communication (auto-voice actuated or PTT) controlled by master station

Camera: 1/4" color CCD camera

Pixels: 250,000 Pixels

Minimum illumination: 5 Lux

Card Reader: HID® ProxPoint® Plus (6005B)

Operating Temp: 14 – 140° F (-10 ~ 60° C)

Mounting:  
AX-DV-P Surface wall mount  
AX-DVF-P Flush mount (with provided box)

Housing:  
AX-DV-P Front Panel: Aluminum die casting  
Main Unit: Resins  
AX-DVF-P Front Panel: Stainless steel  
Main Unit: Resins  
Back box: Steel plate

Color:  
AX-DV-P Solid silver (metallic gray)  
AX-DVF-P Stainless steel, brush-finished

Dimensions:  
AX-DV-P: 9-5/8" x 3-15/16" x 1"  
(245x100x25 mm)  
(HxWxD)  
AX-DVF-P: 11-5/8" x 5-3/4" x 1-7/8"  
(295x146x45 mm)

Weight:  
(approx.)  
AX-DV-P: 0.99 lbs (450g)  
AX-DVF-P: 1.67lbs (760g)

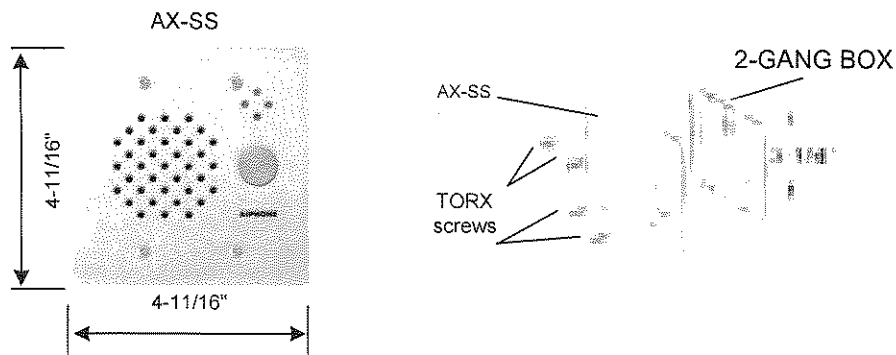
# AX-SS Sub Station for AX

## 2 Gang Stainless Steel, Vandal Resistant Sub with Amplification

### - INSTRUCTIONS -

The AX-SS is an exterior rated sub station designed for use with the AX system. It is designed to be flush mounted into a 2-gang electrical box or can be surface mounted using the SBX-2G. It requires CAT-5e wiring homerun to the CEU, or 4 conductor wire spliced onto a CAT-5 cable at the CEU. 24V DC power is required at the station for power.

### MOUNTING & INSTALLATION:



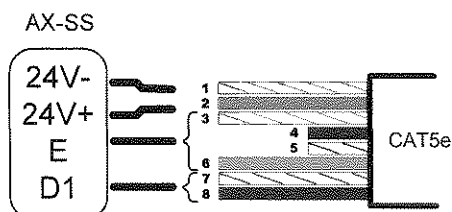
### OPERATION:

- Door stations calling Master(s): Press call button on door station. Tone and LED light will be activated at the master station(s). Communication at master is Push-to-talk or VOX hands free. Communication at door station is always hands free reply. Press OFF at master to conclude.
- Master calling Door Station: Press selector button on master assigned to the door station you wish to call. Press TALK to initiate, then speak via either Push-to-talk or VOX hands free. Press OFF to conclude.

### IMPORTANT NOTE:

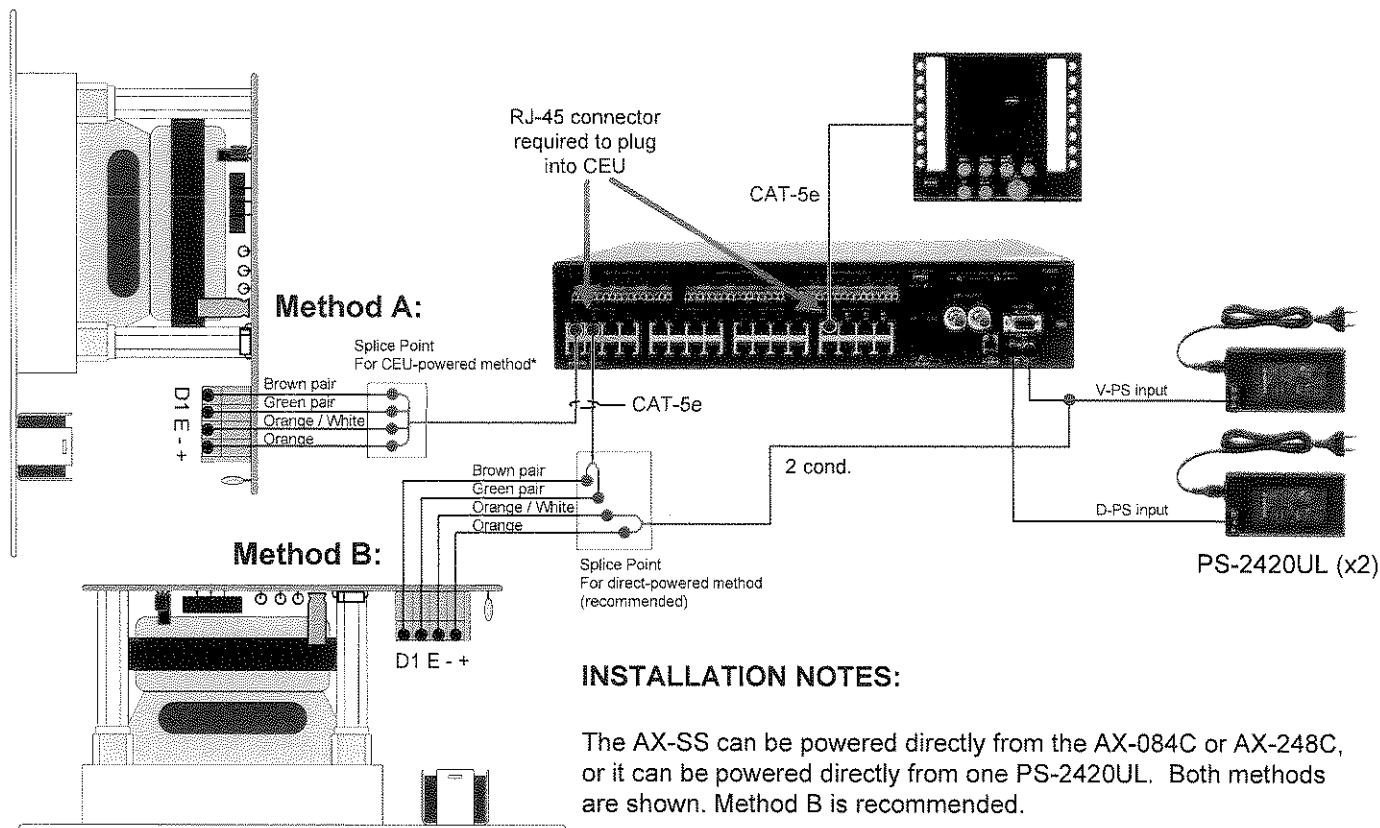
- *If using AX-SS in a system including video master station(s) and if powering the station off of the CAT-5 cable plugged into the CEU: the video monitor will be powered on when communication is established with this station, but there will be no image present. We recommend that the station be powered directly from the PS-2420UL as shown in Method B on the following page.*

### WIRING DIAGRAM:



TIA/EIA 568B Standard:  
Connect 3/6 pair (green) to "E"  
Connect 7/8 pair (brown) to "D1"  
Connect 1 (orange/ white) to 24V-  
Connect 2 (orange) to 24V+

## CONNECTION DIAGRAM:



## INSTALLATION NOTES:

The AX-SS can be powered directly from the AX-084C or AX-248C, or it can be powered directly from one PS-2420UL. Both methods are shown. Method B is recommended.

When using direct-powered method (B), utilize the PS-2420UL that is connected to "V-PS + and -" terminals (right side).

The output volume can be adjusted (H,M,L) via the 3-position switch located near the bottom edge of the unit. (Default is M)

*\*When using the CEU-powered method (A), the door station port must be programmed in the software set-up as a video door station. This will also make the monitor in the AX-8MV turn on when speaking with this station, and will display a blank or snowy screen. In an audio-only system with the AX-8M master, this will not be a concern.*



Volume Control  
H = High  
M = Medium  
L = Low

3 Door Station				
Exchange set No.	No.	Location Name	Video Audio	Call Lamp
1	Door 1		Video	pmal
2	Door 2		None	pmal
3	Door 3		Video	pmal
4	Door 4		Audio	pmal

## SPECIFICATIONS:

Power source: Power provided by AX CEU (AX-084C, AX-248C) or PS-2420UL  
 Speaker: Baffle protected, Water proof and puncture resistant, 2.4 oz. magnet  
 Microphone: Baffle protected  
 Call Button: SPST call button. Call tone is activated at master when call button is pressed  
 Faceplate: 12 Gauge Stainless Steel  
 Mounting: Flush mount into a 2-gang box. Surface mount into SBX-2G, sold separately.  
 Tamper proof screws included (6x32 for use with flush gang box) with T-10 TORX bit.  
 Use hardware included with SBX-2G when installing sub into that unit.  
 Terminations: Unlabeled wire connector. See terminal definitions above  
 Operating Temperature: Flush Switch rating: 14°F to 158°F; Speaker rating: -67°F to 187°F  
 Wiring Distance: 980' using CAT-5e  
 Dimensions: 4-11/16" H x 4-11/16" W x 2" D

Aiphone Communication Systems  
 1700 130th Ave. N.E.  
 Bellevue, WA 98005  
 (425) 455-0510  
 FAX (425) 455-0071

**Toll Free Technical Support:**  
 1-800-692-0200  
 E-mail tech@aiphone.com

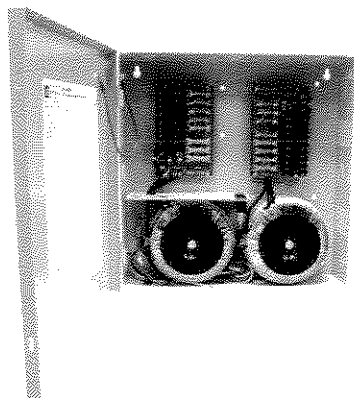
Pg. 2  
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 0509PHJS



## ALTV2416600UL, ALTV2416600ULCB UL Listed AC CCTV Power Supply

Rev. DSALTV2416600UL -B13F

### Overview



- These Altronix AC Wall Mount CCTV Power Supplies provide 24VAC or 28VAC distributed via sixteen (16) fuse or Class 2 Rated PTC protected power limited outputs for powering CCTV Cameras, heaters and other video accessories.

#### **ALTV2416600UL**

- Sixteen (16) fuse protected outputs.
- Outputs are rated @ 3.5 amp.

#### **ALTV2416600UL3**

ALTV2416600UL w/3-wire  
Line Cord.

#### **ALTV2416600ULCB**

- Sixteen (16) Class 2 Rated PTC protected power limited outputs.
- Outputs are rated @ 2.5 amp.

#### **ALTV2416600UCB3**

ALTV2416600ULCB w/3-wire  
Line Cord.

### Specifications

- Input 115VAC, 50/60Hz, 5.4 amp.
- 24VAC @ 25 amp (600VA) or 28VAC @ 20 amp (560VA) supply current.
- Main fuse rated @ 15 amp/32V.
- Illuminated power disconnect circuit breaker with manual reset.
- Surge suppression.
- AC power LEDs.
- Spare fuse(s) provided (all models w/primary and/or secondary fuses).
- Unit maintains camera synchronization.
- Ease of installation saves time and eliminates costly labor.
- Product weight:
  - ALTV2416600UL: 22.8 lbs.
  - ALTV2416600UL3: 23.1 lbs.
  - ALTV2416600ULCB: 22.8 lbs.
  - ALTV2416600UCB3: 23.1 lbs.
- Shipping weight:
  - ALTV2416600UL: 23.7 lbs.
  - ALTV2416600UL3: 24.0 lbs.
  - ALTV2416600ULCB: 23.7 lbs.
  - ALTV2416600UCB3: 24.0 lbs.

### Agency Approvals



UL Listed for Commercial CCTV Equipment (UL 2044).



CUL Listed - CSA Standard C22.2 No.1-98, Audio, Video and Similar Equipment.

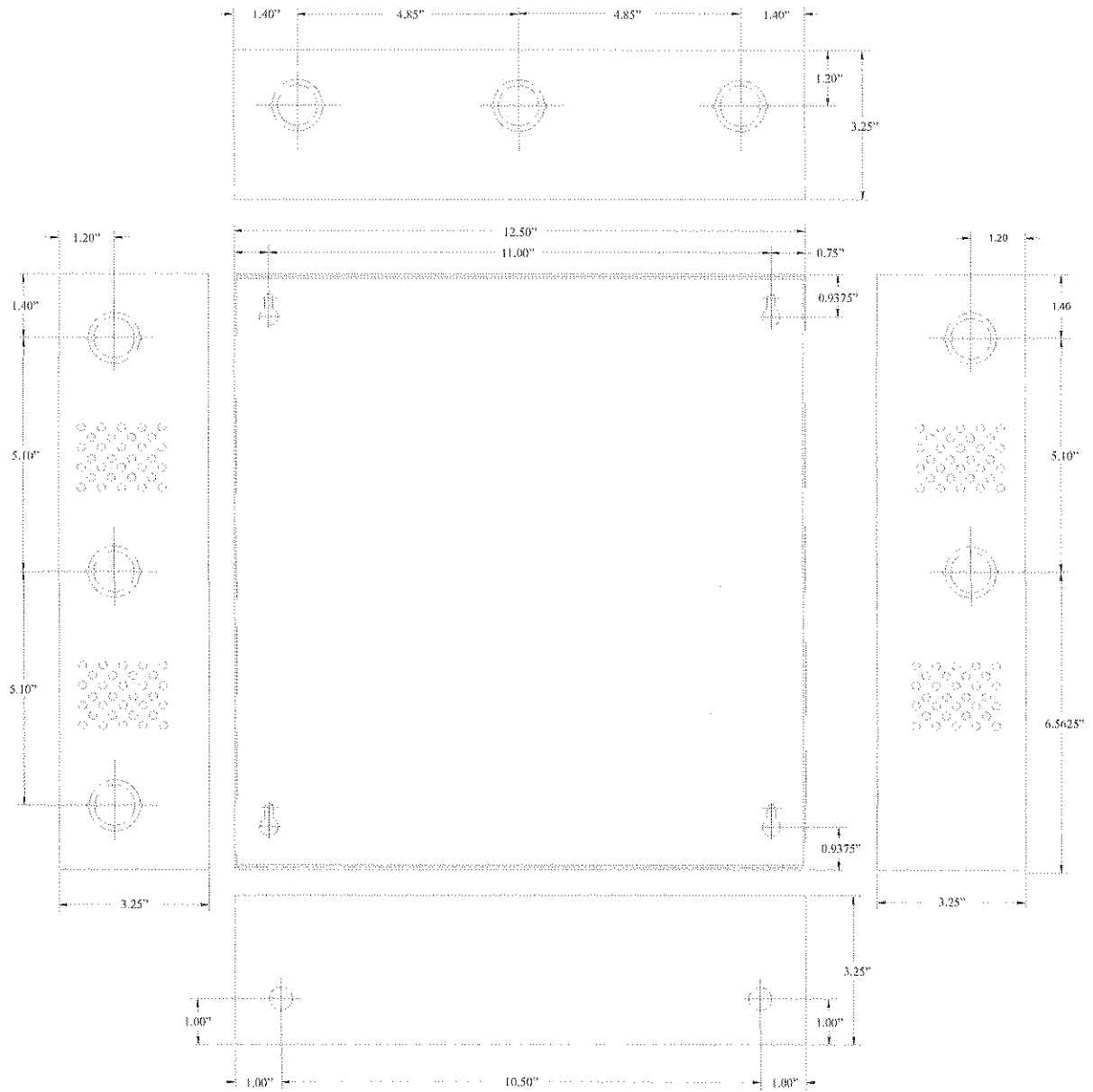


European Conformity



## **Enclosure Dimensions**

13"H x 13.5"W x 3.5"D




**BOSCH**

Invented for life

# WZ18 Integrated Day/Night High-res Bullet Camera



- ▶ 550 TVL high resolution 1/3 in SuperHAD CCD
- ▶ Mechanical filter for vivid daytime color
- ▶ 20 m (66 ft) of high performance night vision
- ▶ 3 to 12 mm varifocal auto-iris lens
- ▶ IP66 with external zoom and focus adjustments

The WZ18 brings together 550 TVL high resolution imaging, mechanical filter CCD technology and ruthlessly efficient dealer-friendly design. The camera delivers 20 m (66 ft) of high performance night vision.

The WZ18 incorporates 18 LEDs which are powerful enough to drive infrared to a maximum range of 30 m (100 ft). For the purposes of CCTV surveillance imaging, the resulting infrared illumination delivers high performance night vision images up to a distance of 20 m (65 ft).

The WZ18 uses a 1/3 in CCD image sensor, delivering 550 TVL images. Using a dual window IR-Cut and IR-Pass filter, the WZ18 delivers vivid color during day and exceptional performance to infrared at night. The mechanical filter technology helps eliminate focus shift and infrared bleed for effective 24/7 performance.

The WZ18 incorporates a 3 to 12 mm varifocal, auto-iris lens for versatile optical function. Focus and zoom are controlled externally by hand, requiring no tools for adjustments and making WZ18 a true Plug-and-Play camera.

Designed to IP66 environmental standards, WZ18 operates on either 12 VDC or 24 VAC. Photocell-controlled operation increases energy efficiency and ensures accurate day-night switching for outstanding 24/7 performance. A 360° pan / 90° tilt bracket and sunshield are both included as standard.

## Functions

### Applications

- Commercial
- Schools and colleges
- Industrial sites
- Residential
- Warehouses
- Parking lots
- Retail
- Hotels and nightclubs
- Transportation hubs

## Technical Specifications

### Video

Signal Processing	Digital signal processing (DSP)
CCD Camera	1/3 in SuperHAD CCD with Mechanical Filter technology
Filter	Dual-window mechanical type, IR Pass, IR-Cut
Resolution	High resolution 550 TVL
Effective Pixels (H x V)	PAL: 795 x 596, NTSC: 811 x 508
Night-Time Sensitivity	0 lux (infrared on)
Day-Night Switching	Photocell-controlled, automatic
Electronics Iris	1/50 to 1/100,000 s (PAL), 1/60 to 1/100,000 s (NTSC)

Output Signal	1Vpp composite video, 75 ohm
S/N Ratio	Greater than 48 dB
Gamma	0.45
Lens	Varifocal 3.3 to 12mm, DC auto-iris
Lens Control	Externally adjustable zoom, focus and auto-iris
LEDs	Even-distribution infrared array, photocell-controlled
Wavelength	850 nm
Number of LEDs	18

#### Electrical

Voltage	12 to 24 VDC or VAC
Power Draw	4.8 W max (IR lamp on)
Power Supply	Not included

#### Mechanical

Construction	Robust aluminum extrusion
Finish	Anodized silver
Sunshield	Included as standard
Bracket	360° pan / 90° tilt bracket included as standard
Weight	0.85 kg (1.9 lb)
Dimensions	Ø 76 x 210 (L) mm, (3.0 x 8.3 in)

#### Environmental

Operational Temperature	-30 °C to +55 °C, (-22 °F to +131 °F)
Environmental	Designed to IP66

#### Ordering Information

##### WZ18NV312-0 IDN High-res Bullet Camera      WZ18NV312-0

IDN bullet cam, 550TVL, SuperHAD, color switching to bw, mech filter, 18LEDs, silver, NTSC, 3 to 12 mm lens, PSU separate

##### WZ18PV312-0 IDN High-res Bullet Camera      WZ18PV312-0

IDN bullet cam, 550TVL, SuperHAD, color switching to bw, mech filter, 18LEDs, silver, PAL, 3 to 12 mm lens, PSU separate

#### Accessories

##### EXPS.008 VAC Power Supply      EXPS.008

Power supply 120 VAC/ 24 VAC 1500 mA

##### WZMB.001 Gang Box Adapter Plate      WZMB.001

Gang box adapter plate for WZ18 and WZ20

##### PSU-230-24 Power Supply      PSU230-24

Power Supply, 230 VAC / 24 VAC, 50 W

**Americas:**  
Bosch Security Systems, Inc.  
130 Perinton Parkway  
Fairport, New York, 14450, USA  
Phone: +1 800 289 0096  
Fax: +1 585 223 9180  
security.sales@us.bosch.com  
www.boschsecurity.us

**Europe, Middle East, Africa:**  
Bosch Security Systems B.V.  
P.O. Box 80002  
5600 JB Eindhoven, The Netherlands  
Phone: +31 40 2577 284  
Fax: +31 40 2577 330  
emea.securitysystems@bosch.com  
www.boschsecurity.com

**Asia-Pacific:**  
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38C Jalan Pemimpin  
Singapore 577180  
Phone: +65 6319 3453  
Fax: +65 6319 3499  
apr.securitysystems@bosch.com  
www.boschsecurity.com

**Represented by**



**BOSCH**

Invented for life

# WZ20 Integrated Day/Night High-res Bullet Camera



- ▶ 550 TVL high resolution 1/3 in LXR CCD
- ▶ Mechanical filter for vivid daytime color
- ▶ 46 m (150 ft) of high performance night vision
- ▶ 5 to 50 mm varifocal auto-iris IR-corrected lens
- ▶ IP66 with external zoom and focus adjustments

The WZ20 brings together high resolution LXR imaging, the latest advances in mechanical filter lensing technology and ruthlessly efficient dealer-friendly design. The camera delivers 45 m (150 ft) of high performance night vision.

The WZ20 incorporates 30 LEDs which are powerful enough to drive infrared to a maximum range of 91 m (300 ft). For the purposes of CCTV surveillance imaging, the resulting infrared illumination delivers high performance night vision imaging up to a distance of 45 m (150 ft).

The WZ20 uses proprietary LXR 1/3 in CCD technology, delivering 550 TVL images. LXR technology is field-proven for outstanding IR spectral response, as well as video images characterized by low-smear, low-streak and excellent anti-blooming characteristics.

Using a dual window IR-Cut and IR-Pass filter, the WZ20 delivers vivid color during day and outstanding sensitivity to infrared at night. Photocell-control increases energy efficiency and ensures accurate day-night switching for outstanding 24/7 performance.

The WZ20 also features a versatile 5 to 50 mm IR-corrected lens for outstanding performance under both visible light and infrared illumination. Combined with the mechanical filter technology, the WZ20 optical core virtually eliminates focus shift between color and infrared modes, allowing sharp focus during day or at night.

Focus and zoom are controlled externally by hand, requiring no tools and making the 5 to 50 mm IR-corrected lens effortless to adjust. A 90° pan / 360° tilt bracket and sunshield are both included as standard.

## Functions

### Applications

- Commercial
- Schools and colleges
- Industrial sites
- Residential
- Warehouses
- Parking lots
- Retail
- Hotels and nightclubs
- Transportation hubs
- Perimeters

## Technical Specifications

### Video

Signal Processing	Digital signal processing (DSP)
CCD Camera	1/3 in LXR CCD with Mechanical Filter technology
Filter	Dual-window mechanical type, IR Pass, IR-Cut
Resolution	High resolution 550 TVL
Effective Pixels (H x V)	PAL: 795 x 596, NTSC: 811 x 508
Night-Time Sensitivity	0 lux (infrared on)
Day-Night Switching	Photocell-controlled, automatic
Electronics Iris	1/50 to 1/100,000 s (PAL), 1/60 to 1/100,000 s (NTSC)
Output Signal	1 Vpp composite video, 75 ohm
S/N Ratio	Greater than 48 dB
Gamma	0.45
Lens	IR-corrected, varifocal 5 to 50 mm, DC auto-iris
Lens Control	Externally adjustable zoom, focus and auto-iris
LEDs	Even-distribution infrared array, photocell-controlled
Wavelength	850 nm
Number of LEDs	30

### Electrical

Voltage	12 to 24 VAC or VDC
Power Draw	8 W max (infrared on)
Power Supply	Not included

### Mechanical

Construction	Robust aluminum extrusion
Finish	Anodized silver
Sunshield	Included as standard
Bracket	360° pan / 90° tilt bracket included as standard
Weight	1.7 kg (3.8 lb)
Dimensions	Ø 98 x 292 (L) mm, (3.0 x 11.5 in)

### Environmental

Operation Temperature Range	-30 °C to +55 °C, (-22 °F to +131 °F)
Environment	Designed to IP66

## Ordering Information

### WZ20NXV550-0 IDN High-res Bullet Camera

WZ20NXV550-0

IDN bullet cam, 550TVL, ExView, color switching to bw, mech filter, 30LEDs, silver, NTSC, 5-50 mm lens, PSU separate

### WZ20PXV550-0 IDN High-res Bullet Camera

WZ20PXV550-0

IDN bullet cam, 550TVL, ExView, color switching to bw, mech filter, 30LEDs, silver, PAL, 5-50 mm lens, PSU separate

### Accessories

#### EXPS.008 VAC Power Supply

EXPS.008

Power supply 120 VAC / 24 VAC 1500 mA

#### WZMB.001 Gang Box Adapter Plate

WZMB.001

Gang box adapter plate for WZ18 and WZ20

#### PSU-230-24 Power Supply

PSU230-24

Power Supply, 230 VAC / 24 VAC, 50 W

**Americas:**  
Bosch Security Systems, Inc.  
130 Peninton Parkway  
Fairport, New York, 14450, USA  
Phone: +1 800 289 0096  
Fax: +1 585 223 9180  
security.sales@us.bosch.com  
www.boschsecurity.us

**Europe, Middle East, Africa:**  
Bosch Security Systems B.V.  
P.O. Box 80902  
5600 JB Eindhoven, The Netherlands  
Phone: +31 40 2577 264  
Fax: +31 40 2577 330  
emes.securitysystems@bosch.com  
www.boschsecurity.com

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apr.securitysystems@bosch.com  
www.boschsecurity.com

### Represented by

- Color Cameras
- Down Cameras
- Network Cameras



**IK-6210A**  
Day/Night CCTV Camera

The IK-6210A is a high quality color camera with a compact design. 50 dB day/night camera is required in a color camera.

**Specifications**

- Image Sensor**
  - 1/3" Interline Transfer CCD
  - 640 (H) x 492 (V)
- Picture Elements**
  - 350 TVL Horizontal
- Resolution**
  - Yes
- Day/Night Function**
  - 0.2 Lux @ F1.0
- Minimum Subject Illumination**
  - Auto
- White Balance**
  - 2500° K to 1000° K
- Lens Mount**
  - CS Mount (Lens Not Included)
- Backlight Compensation**
  - User Settable (On/Off)
- Signal-to-Noise Ratio**
  - 50 dB
- Video Output**
  - VBS 1 Vp-p, 75 ohm, BNC
- Video Format**
  - NTSC, 2:1 Interface
- Synchronization System**
  - Internal or AC Line Lock
- Line-Lock V Phase Adjustment**
  - User Adjustable
- Gamma Compensation**
  - 0.45
- Shutter Control**
  - AES (1/60 to 1/100,000 sec.)
- Auto Electronic Shutter**
  - 1/60 to 1/100,000
- AGC**
  - Yes
- Digital Signal Processing**
  - 10-Bit
- Operating Temperature**
  - 14 °F to 122 °F (-10 °C to +50 °C)
- Camera Mounting Method**
  - 1/4" x 20" Threaded Hole Provided (Top and Bottom)
- Power Supply**
  - AC 24 V (± 10%) DC 12 V
- Dimensions (Inches)**
  - 2.46" (W) x 1.97" (H) x 4.57" (D)
- Weight**
  - 12.3 ounces (350 g)
- Auto-Iris Lens Support**
  - DC/Video, 4 Pin Connector
- Safety Standard**
  - UL2044
- Emission Standard**
  - FCC Class A
- RoHS**
  - Compliant
- Accessories**
  - Lens Connector, Manual, Lens Cap
- Warranty**
  - 3 year limited

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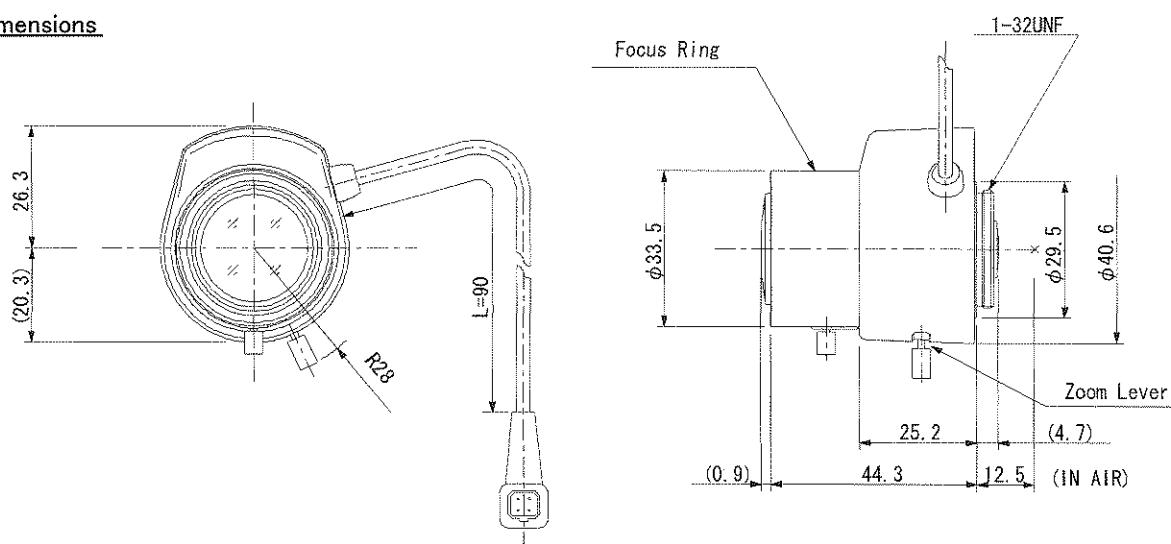
TG3Z2910FCS

3X 2.9mm-8.2mm F1.0

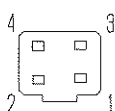
for 1/3 type Cameras, Vari-focal Auto Iris DC Drive  
CS-Mount

Model No.		TG3Z2910FCS		Effective	Front	φ 18.8mm	
Focal Length		2.9mm - 8.2mm		Lens Aperture	Rear	φ 9.0mm	
Max. Aperture Ratio		1:1.0		Back Focal	Tele	14.0mm	
Max. Image Format		4.8mm x 3.6mm(φ 6mm)		Length	Wide	7.8mm	
Operation Range	Iris	F1.0 - F360C		Flange Back Length		12.5mm	
	Focus	0.5m - Inf.		Mount		CS-Mount	
	Zoom	2.9mm - 8.2mm		Filter Size		-	
Control	Iris	DC Auto Iris		Dimensions		φ 33.5mm x 46.6mm x 44.3mm	
	Focus	Manual		Weight		47g	
	Zoom	Manual					
Angle of View	D	1/3 type	133.9° - 44.2°	1/4 type	91.0° - 33.0°		
	H		98.3° - 35.2°		70.7° - 26.3°		
	V		70.7° - 26.3°		51.9° - 19.7°		
Coil	Drive	190 Ω					
	Control	855 Ω					
Operating Temperature		-10°C - +50°C					

### Dimensions



### Wiring Diagram



Pin No.		
1	BROWN	Control(-)
2	RED	Control(+)
3	YELLOW	Drive (+)
4	ORANGE	Drive (-)



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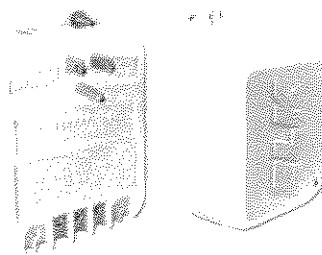
## AC Transformers

### ELK-TRG2440 24VAC, 40 VA

- Auto-Resetting (PTC) Fused Secondary
- Green Power On LED
- Grounding Prong & Terminal
- Electrical outlet mounting tab
- UL Listed
- Wire Strain Relief
- Lifetime Limited Warranty

## Information:

P1216,TRG1640,TRG2440 Data Sheet



## Specifications:

- Input Voltage: 120 VAC, 60Hz, .43W.
- Output Voltage: TRG1640 = 16.5 Volts A.C.  
TRG2440 = 24 Volts A.C.
- Output Power: TRG1640 = 45 VA.  
TRG2440 = 40 VA.
- Size: H=4.14"(105), W=2.74"(70), D=2.2"(56)
- Color: White



Home Automation magazine has chosen

ELK's AC Transformers as one of it's

Top 50 Editors' Picks!

For more information, call ELK at (800) 797-9355. To locate an ELK authorized distributor near you, click [here](#).

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Stylish, Full Featured, and  
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**M1 Basic Training**  
January 13, 2012  
12:00pm - 1:30pm EST

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Are you ready for lightning  
season?



Help your  
customers  
protect their  
investment.

Use ELK  
surge suppressors with  
every system installation,





## Overview

The TruVision™ DVR 30 (TVR 30) digital video recorder brings the benefits of digital security monitoring to small and mid-sized commercial applications. A user-friendly interface and more than a month of hard disk recording make the TVR 30 easy to install, use and maintain. Users can efficiently view, record, and play back recorded high-quality video that is transmitted based on alarms, events and recording attributes like schedules. For added convenience, users can configure the DVR, view live video or search and play back video through the IR remote control, mouse, front-panel buttons or the remote browser.

A cost-effective surveillance solution, the TVR 30 features H.264 video compression technology that allows users to save high-quality images into smaller file sizes for easier storage and streaming over an Ethernet network. Any range of recorded video can be easily copied to a blank recordable CD or DVD and played back without installing any software on the playback PC.

The Record Wizard makes programming easy—by entering the number of days to store video, the DVR programs itself. Up to 16 channels of audio can be recorded for applications requiring audio which is played in sync with video. The dual streaming feature makes it easier to transmit video and audio over low-bandwidth networks.

The TVR 30 is a fit-and-forget solution, with a simple search function for reviewing video. External alarm inputs and motion detection trigger an alarm when movement in a user-definable area of the image is detected. The feature set includes complete search by alarm, motion, and time and date. Video evidence is easily archived to an external device connected through a USB 2.0 port – and because USB 2.0 is hot-swappable, an external device can be connected at any time. Transferring video information is quick and easy, as the TVR 30 creates a file that can be viewed by any PC with a TVR 30 player, making it ideal for retail, education, police interrogation rooms and small commercial applications.

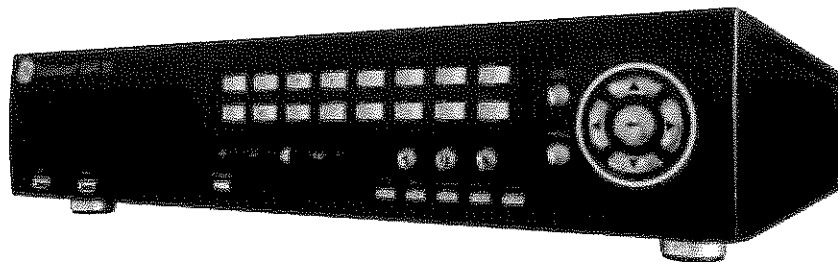
## Standard Features

- Network-friendly dual streaming means more efficient and flexible video transmission
- Simple one-button archive video via USB 2.0, CD/DVD or download allows convenient remote access to archived video
- Record Wizard facilitates quick, easy configuration and installation—program DVR to record by number of days or by frame rate
- High-quality recording resolutions—CIF, 2CIF, D1—deliver clear images for quick decision making
- Record up to 120 fps NTSC (100 PAL) at D1 for clear images and quick decision making
- Simple, free, pre-configured DDNS makes remote access easy
- Video Authentication ensures video authenticity that can be verified in browser
- Motion-detection recording saves storage space and time required to search for events
- Network capable via Ethernet (TCP/IP) to provide remote monitoring, searching, playback, archiving, configuration, alarm notifications and firmware upgrades
- 16 channels audio recording
- Bi-directional audio—1 channel allows users to carry on a conversation via remote software over network to DVR
- POS and ATM text insertion (requires ProBridge accessory, sold separately)

## TruVision Line

# DVR 30

H.264 Digital Video  
Recorder, Dual-Streaming



North America  
T 888-GE-SECURITY  
888-437-3287

Asia  
T 852-2907-8108  
F 852-2142-5063

Australia  
T 61-3-9239-1200  
F 61-3-9239-1299

Europe  
T 32-2-725-11-20  
F 32-2-721-40-47

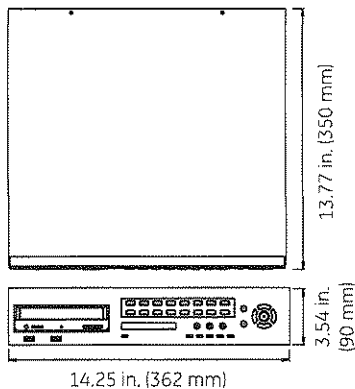
Latin America  
T 305-593-4301  
F 305-593-4300

gesecurity.com

Specifications subject to change without notice.

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## Dimensional Diagram



## Ordering Information

TVR-3008-500	TruVision™ DVR 30, 8 ch, DVD/CD, 500 GB Storage
TVR-3008-1T	TruVision DVR 30, 8 ch, DVD/CD, 1TB Storage
TVR-3008-2T	TruVision DVR 30, 8 ch, DVD/CD, 2TB Storage
TVR-3016-500	TruVision DVR 30, 16 ch, DVD/CD, 500 GB Storage
TVR-3016-1T	TruVision DVR 30, 16 ch, DVD/CD, 1TB Storage
TVR-3016-3T	TruVision DVR 30, 16 ch, DVD/CD, 3TB Storage

## Specifications

### Video & Audio

- 8, 16 video inputs, composite BNC, NTSC/PAL compatible
- Video looping (manual termination)
- Recording resolution: CIF, 2CIF, D1
- Real-time Live on all video channels
- Video compression: H.264
- Watermarking
- VGA & HD output resolutions: 800 x 600, 1024 x 768, 1280 x 1024
- 16 audio channels, line input
- 8i-directional audio (1 channel), line output
- Recording modes: Schedule, Motion, Alarm, continuous
- Pre-alarm (up to 30 seconds)
- Video recording quality: 7 preset settings, Record Wizard, Expert Mode
- Motion detection, 12 x 16 grid array, sensitivity, adjustable trigger
- Video loss detection

### Electrical

Power source: Internal power supply, Universal, Auto-switching, 100 - 240 VAC, 50/60Hz, 100W

### Mechanical

- Dimensions (WxHxD): 14.25 x 3.54 x 13.77 in. (362 x 90 x 350 mm)
- 2RU
- Weight: 5.5 Kg

### Connectors

- Main monitor: VGA, S-video & composite BNC, HD output
- Spot monitor: composite BNC
- Alarm I/O: Terminal block, 3 output relays
- RS-422/RS-485 terminal block
- Video input: composite BNC, (1 Vp-p), loop through
- Audio I/O: terminal block input, RCA output
- 10/100/1000 Ethernet: RJ-45
- USB 2.0 port2, 2 front, 2 back
- RS-232C (D-Sub 9 pin male connector)

### Features

- Embedded Operating System: Linux
- Easy-to-use Graphical User Interface, supported by mouse and IR remote control
- Network protocols: DHCP, Static, PPPOE, DDNS
- Bandwidth Throttle
- Dual streaming on live video
- Daylight Saving Time
- One button Archive: Export video/audio built-in CD/DVD burner or USB devices (USB flash drive or HDD)
- Supports KTD-405 Series keyboards
- PTZ control from front panel, IR remote and software
- PTZ protocols include: GE 485, GE 422, Pelco P & D, AD 422, and others
- Text insertion (ProBridge accessory required, sold separately)
- IR remote control (included with batteries)
- USB Mouse (included)

### Software:

#### Web Browser

- Easy to install ActiveX control in Web Browser
- View live video, from 1 camera to all 16 cameras
- Dual streaming enables low-bit rate for low-bandwidth networks
- Search and playback video
- Archive video to Client PC
- Remote configuration. Easy to program DVR via Web Browser

#### Minimum System Requirements:

- Intel-compatible PC, 700 MHz or faster
- 1 GB RAM or more
- Windows XP, Vista & 7
- IE 6.x, 7.x or 8.x

#### Video Player

- Play video that was archived from DVR on PC
- Video Player does not require any components to be installed on PC (Zero Footprint).*

#### Minimum System Requirements:

- Intel-compatible PC, 700 MHz or faster
- 1 GB RAM or more
- Windows 7, XP, Vista

See website or contact Technical Support for latest information on system requirements.

## TruVision™ DVR 30 storage tables

### 16-Channel Units

Storage	30 Days			60 Days			90 Days		
	CIF	2CIF	D1	CIF	2CIF	D1	CIF	2CIF	D1
500 GB HDD	1 fps	-	-	1 fps	-	-	-	-	-
1 TB HDD	3.75 fps	1 fps	1 fps	1 fps	-	-	1 fps	-	-
3 TB HDD	11 fps	3.75 fps	1 fps	3.75 fps	1 fps	1 fps	3.75 fps	1 fps	1 fps

Storage table assumes continuous recording for all 16 cameras at highest quality setting in NTSC video format (with audio recording off). Actual storage and frames per second (fps) may vary by application, camera type, and environmental conditions.

### 8-Channel Units

Storage	30 Days			60 Days			90 Days		
	CIF	2CIF	D1	CIF	2CIF	D1	CIF	2CIF	D1
500 GB HDD	3.75 fps	1 fps	1 fps	1 fps	-	-	-	-	-
1 TB HDD	7.5 fps	1 fps	1 fps	3.75 fps	1 fps	1 fps	1 fps	1 fps	-
2 TB HDD	7.5 fps	3.75 fps	3.75 fps	7.5 fps	1 fps	1 fps	3.75 fps	1 fps	1 fps

Storage table assumes continuous recording for all 8 cameras at highest quality setting in NTSC video format (with audio recording off). Actual storage and frames per second (fps) may vary by application, camera type, and environmental conditions.



imagination at work

Description: 20 AWG RG59/U COAX + 18/2 CL2  
Compliance: UL13 & 444, NEC Article 820

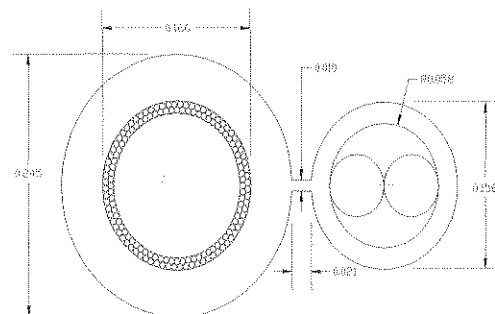
#### Construction:

Conductors 20 AWG Solid Bare Copper center conductor  
2 - 18 AWG 19/0092 Stranded Bare Copper

Insulation	<u>Coax</u>	<u>18 AWG 2/C</u>
Type	Foamed Polyethylene	Polypropylene
Color	White	Blk, Red
Thickness	0.057" nom.	0.006" nom.
Diameter	0.145" nom	0.058" nom.
Lay Length	---	2.25" nom.

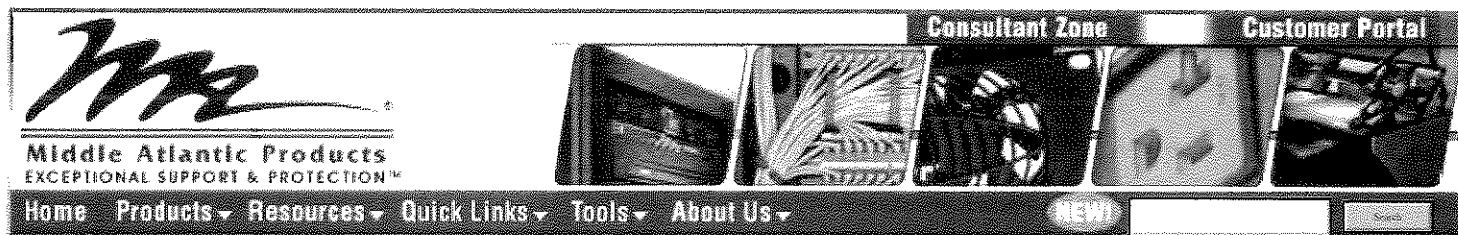
	<u>Braid</u>
Strands	0.005" nom. Bare Copper
% Coverage	95 nom.

Jacket	<u>Coax</u>	<u>18 AWG 2/C</u>
Type	PVC	
Color	Blk or Wht	
Thickness	0.034" nom.	0.020" nom.
Diameter	0.245" nom.	0.156" nom.
Overall Diameter	0.420 x 0.245" Nom.	
Legend (Ink Print)	HONEYWELL P/N 5013 CCTV PREMIUM RG 59/U 20 AWG + 2C18 3038058 (ETL) CL2 75C SUN. RES. W/O# XXXXXX-XXXXXX XXXX FT CAMERA/ZONE A B C D E F 1 2 3 4 5 6 7 8 9	



#### Properties

Voltage Rating	300V
Temperature Rating	-20 to 75 °C
Capacitance	17 pf/ft nom.
Impedance	75 Ohms nom.
Resistance (Conductor)	10.9 Ohms/M' at 20°C
Resistance (Shield)	2.6 Ohms/M' at 20°C
Attenuation (db/100')	0.2 at 1 MHz, 5.9 at 400 MHz, 10.8 at 1000 MHz
Flame Rating	UL 1685 Vertical Tray



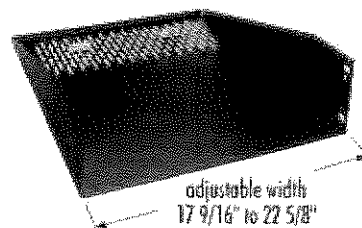
### Wide Unit Shelf System



Accommodating components too wide to fit the 17-3/8" inside width of standard rackshelves, these shelf systems fit units up to 22-1/2" wide, and either bolt into millwork or to the mounting angle of standard rackrail. Occupies 3 rackspaces, the WUSS system comes complete with a pair of ears, a bottom, and appropriate assembly hardware.

50 lb. Weight Capacity.

Part #	Depth
<b>WUSS11.5</b>	11-1/2"
<b>WUSS14</b>	14"
<b>WUSS15.5</b>	15-1/2"
<b>WUSS17.5</b>	17-1/2"
<b>WUSS20.5</b>	20-1/2"



14" depth available - fits our DWR series shallow wall racks!

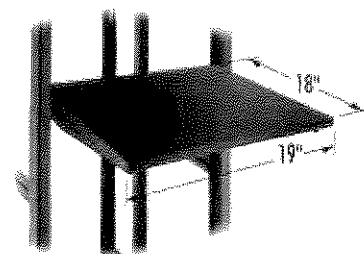
### Fixed Writing/ Computer keyboard Shelf



The FWS fixed writing/computer keyboard shelf bolts quickly to any 19" rack to create an ideal workspace. With an attractive, black laminate top made from 3/4" furniture-grade MDF board, it occupies 2 rackspaces and comes complete with special rail-mounting hardware.

**Part #**

**FWS**

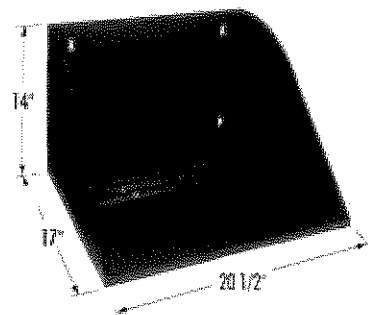


### Wall Mount Shelf

Wall mounting non-rackmount components is much easier with our WMS wall mount shelf. Featuring a fully welded design using 16-gauge steel, the unit's 200 lb. capacity gives it unrivaled strength in its class. With a vented bottom to help keep things cool, both 1/2" and 3/4" electrical knockouts are provided for your convenience. Can be used to economically wall-mount our RK series racks.

**Part #**

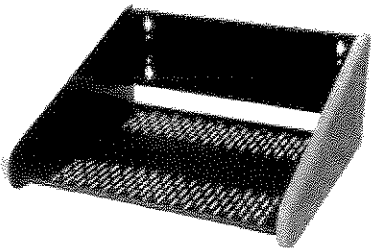
**WMS-20**



### Furniture Side Wall Mount Shelf

- Rounded outside corners for safety
- Easy to install
- Standard colors are dark cherry, graystone and maple (shown)
- Hold items up to 18" wide and 15" deep with room for cables
- 20-1/4" Wide, 18-1/2" Deep, 9" tall

- 100 lb. weight capacity



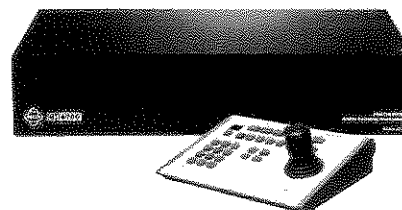
Part #	Color
WMS-1614DC	Dark Cherry
WMS-1614GS	Graystone
WMS-1614MP	Maple

## CM6700 Series Matrix

### MICROPROCESSOR-BASED SWITCHER/CONTROLLER, 16 X 2/4

#### Product Features

- 16 Video Inputs; 2 or 4 Video Outputs
- 20-Character Camera Title
- Time (24-Hour or AM/PM Formats); Date (4 Formats)
- Alarm Display Call-up from 18 Direct-Connect Alarm Inputs
- Video Inputs Individually Selectable for Terminating or Looping
- Coaxitron® Compatible
- Individual Monitor Sequential Switching with Preset Call
- Compatible with RS-422 Pelco D or Pelco P Protocol
- Camera Control Selection: Coaxitron® or RS-422; Individually Selectable per Camera
- Control Genex® Multiplexers
- Selectable Data Port: RS-232/RS-422/RS-485
- Password-Protected Menu Configuration
- User Partitioning to Prevent Unauthorized Viewing



CM6700-MXB SWITCHER/CONTROLLER

- Compatible Keyboards:
  - Switcher Only (KBD100)
  - Switcher Plus Multi-Speed Control, Presets, Patterns, Receiver Auxiliary (KBD200A)
  - Switcher Plus 3-Axis Joystick for Variable Speed PTZ Control, Presets, Patterns, Receiver Auxiliary (KBD300A)
- Optional CM6700-VMC Two-Monitor Expansion Card
- Includes Spanish-Language Menus

The **CM6700 Matrix** switcher/controller is a very affordable, highly versatile, full-featured cross-point matrix switcher. The **CM6700** provides switching and control for 16 video inputs and up to 4 monitor outputs from any one of up to 8 keyboards.

The **CM6700 Matrix** switching unit is designed to be remotely operated from desktop keyboards or external computer systems.

The versatile mounting system allows for a variety of installation options: either in a 19-inch rack (front or rear mount), wall, or shelf mount. This versatility allows the bulk of the video cables to be routed to a convenient area such as a telephone room instead of the operator location.

Straightforward on-screen menus make configuring the **CM6700** simple and easy. (The **CM6700** even lets you switch to Spanish-language configuration menus.) The user-enabled character display shows time and date, operation mode, camera number, and a 20-character title for quick, easy identification of the on-screen video. The display characters are white with black outline for viewing under varying lighting conditions. The display can be located anywhere on the viewing monitor and can be turned on or off.

The **CM6700** supports two system macros, or salvo sequences, to allow quick call-up of up to four cameras to four monitors simultaneously. Salvo sequences include preset call of suitably equipped (PTZ or dome) receivers.

When an alarm is received, the **CM6700** will switch the camera for that alarm to the selected monitors. If a PTZ function is being performed when an alarm is received, an alarm-pending message will appear. An alarm will automatically call a preset and preposition a camera with suitable (PTZ or dome) receivers. Alarms are cleared either by keyboard acknowledgment or timeout after contact deactivation. Two extra alarm inputs allow for alarm-activated salvo sequence call-up. A Form C alarm relay output allows for automatic activation of an alarm event recorder or other device. In addition, this relay is manually controllable from the system keyboard.

**PELCO**

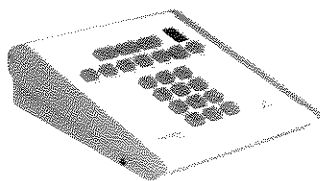
by **Schneider Electric**

International Standards  
Organization Registered Firm  
ISO 9001 Quality System



C523 / REVISED 3-17-11

## SYSTEM KEYBOARDS



**KBD100**

The **KBD100**, **KBD200A**, and **KBD300A** keyboards have been engineered for use with the CM6700 matrix switcher. Each keyboard in the series offers a different level of control and functionality in order to provide maximum versatility in every application.

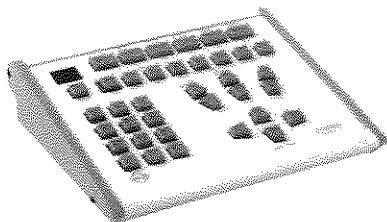
### **KBD100**

Our most economical keyboard, the **KBD100** features limited CM6700 matrix control for operator locations where PTZ functions are not intended or not required. Features include configuration capabilities, camera and monitor call-up, operation of sequences and patterns, and three function keys to allow local auxiliary activation.

### **KBD200A/KBD300A STANDARD FEATURES**

The **KBD200A** and **KBD300A** full-feature keyboards offer PTZ control, configuration capabilities, camera and monitor call-up, operation of sequences and patterns, and local auxiliary activation. Added function keys allow control of receiver auxiliaries. The function keys have dual selections to allow remote control of multiplexer functions when a Pelco MX4000 Series multiplexer is used in conjunction with the CM6700 matrix switcher.

These keyboards can be configured for Direct Mode operation; see below.



**KBD200A**

### **KBD200A/KBD300A EXCLUSIVE KEYBOARD FEATURES**

This economical keyboard features "Touchspeed" multi-speed control of variable speed receivers.

The **KBD200A** additionally features an ASCII Mode, included specifically for phone line video applications. **KBD200A** ASCII Mode allows complete operational control of the CM6700 matrix switcher through the ASCII port (configuration not supported). When configured for ASCII Mode control, the **KBD200A** outputs RS-422 ASCII protocol at 9600 baud. This configuration requires the KBDKIT and, in some cases, the PV140 RS-232 to RS-422 converter.

The **KBD300A** keyboard features a 3-axis, vector-solving joystick that includes a twisting, return-to-center head for precise, single-hand control of PTZ functions.

### **DIRECT MODE RECEIVER CONTROL**

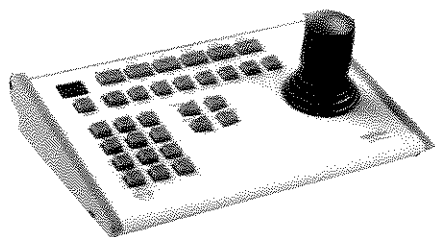
The **KBD200A** and **KBD300A** keyboards can be alternately configured for Direct Mode operation. Each keyboard requires a remote keyboard wiring kit (KBDKIT) for Direct Mode operation.

Direct Mode control is a feature that allows 2-wire control of up to 16 daisy-chained receivers directly from the keyboard.

When configured for Direct Mode control, keyboards output Pelco P protocol at 4800 baud.

Direct Mode control features include configuration and call-up of presets, full PTZ control of variable speed receivers, and activation of receiver auxiliaries.

The **KBD300A** automatically recognizes the configured mode (Direct or CM6700).



**KBD300A**



# TECHNICAL SPECIFICATIONS

## SWITCHER

### GENERAL

Memory Protection	Replaceable lithium battery provides data protection for ten years	
Keyboard Capacity	8	
Receiver/Dome Control	Coaxitron® and RS-422	
Alarm Inputs	18, configurable (includes presets and N.O./N.C. device)	
Alarm Relay Outputs	1, DPST	
Rating	0.5 A at 125 VAC	
General Purpose Outputs	2, open collector; 32 VDC max., 25 mA max.	
Data Ports	2	
Receiver	RS-422, Pelco D protocol 2400 baud, Pelco P protocol 2400 to 9600 baud	
Data (Computer)	RS-232/RS-422/RS-485, 1200 to 19.2K baud	
Keyboard Ports	2	
Local Port	Provides data and 12 VAC power for one keyboard	
Remote Port	Data only port for all additional or remote keyboards; each keyboard connected to this port requires a KBDKIT	
Dimensions (switcher only)	10.5" D x 17.0" W x 3.5" H (26.67 x 43.18 x 8.89 x cm)	
Mounting (switcher only)	Factory configured for EIA rack mount (2 RUs); rack ears can be removed for wall mount or freestanding applications	
Weight	Unit	Shipping
CM6700-MXB2	9.46 lb (4.28 kg)	13 lb (5.88 kg)
CM6700-MXB4	10.22 lb (4.62 kg)	14 lb (6.34 kg)

### ELECTRICAL

Power Source	120 V or 230 V, 50/60 Hz
Power Consumption	10 W

### SWITCHER CHARACTERISTICS

Video Inputs	16 inputs, BNC, terminating or looping (jumper selectable) 0.5 to 2.0 Vp-p composite video
Video Outputs	2 or 4 outputs, BNC
Switching Type	Cross-point video matrix, RS-170, NTSC, CCIR and PAL compatible
Switching Method	Vertical interval switching
Switching Time	Less than 16 milliseconds (typical)

### VIDEO

Bandwidth	15 MHz
Frequency Response	Flat to 8 MHz, $\pm 1$ dB to 15 MHz
Signal-to-Noise Ratio	-60 dB (peak-to-peak vs. RMS noise)
Adjacent Channel Crosstalk	-49.6 dB at 3.58 MHz
Differential Gain	1.03%
Differential Phase	1.02°
Line Tilt	0.6%
Field Tilt	1.2%
Gain	Unity ( $\pm 1$ dB)
DC Output	Zero volts
Video Cable Distances	Minimum cable requirements: <ul style="list-style-type: none"> <li>75-ohms impedance</li> <li>All-copper center conductor</li> <li>All-copper braided shield with 95% braid coverage</li> </ul>

Cable Type	Maximum Distance
RG59/U	750 ft (228 m)
RG6/U	1,000 ft (304 m)
RJ11/U	1,500 ft (457 m)

## CHARACTER GENERATION

Character Type	White with black outline
Camera Identification	1 line, 20-characters plus camera number
Date/Time	1 line
Configurable	On-screen, menu driven
Character Set	80 ASCII characters

## KEYBOARDS

### ELECTRICAL

Input Voltage	12 VAC or $\pm 12$ VDC
Power Consumption	5 W
Connector Type	RJ-45, 8-pin modular (female)
Communication Type	RS-485*

\*Maximum cable distance for RS-485 communication over 24-gauge wire is 4,000 feet (1,219 m). Pelco recommends using shielded twisted pairs, such as Belden 9843 or similar cable that meets or exceeds the basic requirements for EIA RS-485 applications.

### KEYBOARD COMMUNICATION

<b>6700 Mode</b>	<b>(KBD100/200A/300A)</b>
Interface	RS-485
Protocol	Pelco ASCII
Baud Rate	9600
Communication	
Parameters	8 data bits, odd parity, 1 stop bit
<b>Direct Mode</b>	<b>(KBD200A/KBD300A)</b>
Interface	RS-422
Protocol	Pelco P
Baud Rate	4800
Communication	
Parameters	8 data bits, no parity, 1 stop bit
<b>ASCII Mode</b>	<b>(KBD200A)</b>
Interface	RS-422
Protocol	Pelco P
Baud Rate	9600
Communication	
Parameters	8 data bits, odd parity, 1 stop bit

### GENERAL

Keyboard Keypad	Electromechanical	
Joystick (KBD300A)	3-axis, vector solving, twisting, return-to-center head	
Display		
KBD100	7-segment digital display: Red LED, 1 cell	
KBD200A/KBD300A	7-segment digital display: Red LED, 2 cells Multiplexer mode indicator: Green LED	
Ambient Operating		
Temperature	20° to 120°F (-7° to 49°C)	
Humidity	10% to 90%, noncondensing	
Dimensions		
KBD100	7.125" L x 6.00" W x 2.25" H (18.10 x 15.24 x 5.72 cm)	
KBD200A	7.125" L x 8.125" W x 2.25" H (18.10 x 20.64 x 5.72 cm)	
KBD300A	7.125" L x 9.50" W x 2.25" H (24.13 x 18.10 x 5.72 cm)	
Weight	Unit	Shipping
KBD100	1.9 lb (0.86 kg)	3 lb (1.35 kg)
KBD200A	2.1 lb (0.97 kg)	3 lb (1.35 kg)
KBD300A	2.5 lb (1.12 kg)	5 lb (2.26 kg)

# TECHNICAL SPECIFICATIONS

## MODELS

### Matrix Bay

CM6700-MXB2	Switcher/controller. 16 inputs, 2 outputs, NTSC, 120 V, 50/60 Hz
CM6700-MXB2-X	Switcher/controller. 16 inputs, 2 outputs, PAL, 230 V, 50/60 Hz
CM6700-MXB4	Switcher/controller. 16 inputs, 4 outputs, NTSC, 120 V, 50/60 Hz
CM6700-MXB4-X	Switcher/controller. 16 inputs, 4 outputs, PAL, 230 V, 50/60 Hz

### Keyboards

KBD100*	Desktop keyboard, switcher only (25-foot cable supplied)
KBD200A*	Desktop keyboard, multi-speed PTZ, (25-foot cable supplied)
KBD300A*	Desktop keyboard, variable-speed PTZ, (25-foot cable supplied)

\*If distance between switcher and keyboard exceeds 25 feet, use KBDKIT/KBDKIT-X.

**Note:** In addition, the KBD200A and KBD300A keyboards provide control capabilities for Pelco multiplexers. The function key icons shown are active only when used in conjunction with an appropriate Pelco multiplexer.

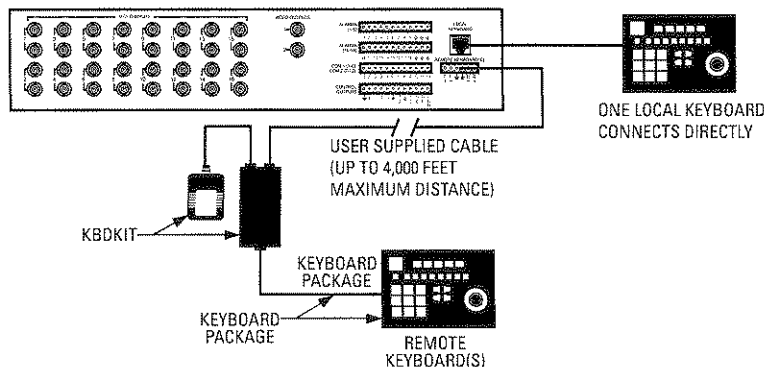
## CERTIFICATIONS/RATINGS

- CE compliant (CM6700-MXB2-X, CM6700-MXB4-X, CM6700-VMC2-X, KBD100, KBD200A, KBD300A, and KBDKIT-X)
- FCC, Class A (CM6700-MXB2, CM6700-MXB4, CM6700-VMC2, KBD100, KBD200A, and KBD300A)
- UL/cUL Listed (CM6700-MXB2, CM6700-MXB4, KBD100, KBD200A, and KBD300A)
- Meets NEMA Type 1 standards

## OPTIONAL ACCESSORIES

CM9760-CDU-T	Code distribution unit; 16-channel RS-422 transmit only (2 data wires and ground) distributor. Primarily used for configuring up to 16 pan/tilt/zoom receivers in a "star" configuration.
CM6700-VMC2	2-monitor output expansion card (NTSC). Expands a CM6700-MXB2 to a four-monitor system and features easy installation and plug-and-play functionality.
CM6700-VMC2-X	2-monitor output expansion card (PAL). Use with CM6700-MXB2-X.
KBDKIT	Remote keyboard wiring kit. Required if connecting KBD200A or KBD300A keyboards to the Remote Keyboard Port on the SCU (6700 Mode) or when using a single keyboard in Direct or ASCII Mode applications. Includes two RJ-45 wall blocks and one 120 VAC to 12 VAC transformer. Maximum cable distance for RS-422/RS-485 communication over 24-gauge wire is 4,000 feet (1,219 m). Use shielded twisted pairs cable that meets basic requirements for RS-422/RS-485 applications. (One wall block and transformer required for each keyboard.)
KBDKIT-X	Same as KBDKIT except includes 230 VAC to 12 VAC transformer
PV140	RS-422 to RS-232 interface converter and power supply

SAMPLE CM6700 KEYBOARD WIRING DIAGRAM



**IMPORTANT NOTE. PLEASE READ.** The network implementation is shown as a general representation only and is not intended to show a detailed network topology. Your actual network will differ, requiring changes or perhaps additional network equipment to accommodate the system as illustrated. Please contact your local Pelco Representative to discuss your specific requirements.

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## IS20/IS21 Series Camclosure® 2 Camera System INDOOR MINI DOME, SURFACE AND FLUSH MOUNT

### Product Features

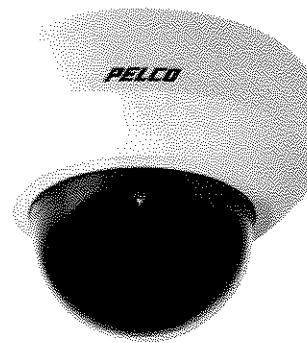
- Fully Integrated Indoor Enclosure with Camera and Lens
- 3 Camera Options
  - Super Dynamic 5 (SD5)™ Day/Night Wide Dynamic Range (WDR)
  - Day/Night High Resolution
  - High Resolution Color
- Varifocal Lens
- Shipped Completely Assembled, Easy to Install
- 24 VAC or 12 VDC Operation, Autosensing
- Manual, 3-Axis (Pan/Tilt/Rotation) Positioning Allows Adjustment for Optimum Camera Rotation and Placement
- Service Connector for Video Output
- Available in Surface or Flush Mount Models with Smoked or Clear Domes
- Auto Image Stabilizer to Compensate for External Vibration

The **IS20/IS21 Series Camclosure® 2 Camera System** integrates a camera and lens package into a small, versatile indoor enclosure that can be mounted directly to, or recessed into, a ceiling or wall. The **IS20/IS21 Series** features a three-axis camera and lens positioning system that is capable of a wide variety of pan and tilt angles.

The **IS20/IS21 Series** offers three high resolution camera options suitable for a variety of indoor environments:

- **Super Dynamic 5 (SD5)™ day/night wide dynamic range (WDR):** Features a high resolution (650 TVL) color camera with auto iris, varifocal lens, and auto back focus. Application examples include environments with difficult lighting that require extremely high sensitivity and dynamic range.
- **True day/night:** Features a high resolution (540 TVL) color camera with auto iris and varifocal lens. Application examples include environments that require color images during the day but use monochrome images at night with or without supplemental IR lighting.
- **Color:** Features a high resolution (540 TVL) color camera with auto iris, simple day/night functions, and varifocal lens. For use in all general-purpose environments.

All cameras in the **IS20/IS21 Series** offer adaptive black stretch (ABS) to provide optimal image quality in dark areas by increasing the visibility in those areas without sacrificing the image quality in brighter areas. In addition, in some cameras the **IS20/IS21 Series**



IS20-DNV10S MODEL

features Super Dynamic 5 (SD5) technology, ensuring the best picture quality even in challenging environments. The Super Dynamic 5 (SD5) day/night WDR camera is equipped with auto back focus (ABF) and intelligent motion detection (i-VMD). The ABF feature automatically adjusts the camera's CCD position when installing or changing from color to black-white mode, saving time during setup and optimizing focus. The i-VMD feature is an intelligent built-in video motion detector that provides more efficient and reliable surveillance, while eliminating the loss of notification in vital scenes. Using advanced motion analytics provides the ability to accurately detect motion within a targeted area. The i-VMD analytics include three behaviors: motion detection, object abandonment/removal, and scene change detection.

The **IS20/IS21 Series** is shipped completely assembled, making installation fast and easy. To surface-mount the unit, remove it from the box, attach it to the mounting surface, and connect video and power. For recessed installations, use the supplied mounting bracket to install the unit inside a ceiling or wall.

The **IS20/IS21 Series** also features a complete line of optional mounting accessories. Optional pendant and wall mounts are available for all models, which allow the cameras to be adapted for a variety of installations. In addition, the flush mount kits allow surface mount cameras to be installed in a ceiling if the installation type should change after the original deployment.

**PELCO**

by Schneider Electric

International Standards  
Organization Registered Firm:  
ISO 9001 Quality System



C3472 / REVISED 5-16-11

# TECHNICAL SPECIFICATIONS

## CAMERA/OPTICS

	<b>IS20/IS21-DWS Series Super Dynamic (SD5) Day/Night Wide Dynamic Range Models</b>	<b>IS20/IS21-DN Series True Day/Night Models</b>	<b>IS20/IS21-CH Series Color Models with Simple Day/Night</b>
Image Sensor	1/3-inch interline transfer CCD	1/3-inch interline transfer CCD	1/3-inch interline transfer CCD
Effective Pixels NTSC PAL	976 (H) x 494 (V) 976 (H) x 582 (V)	768 (H) x 494 (V) 752 (H) x 582 (V)	768 (H) x 494 (V) 752 (H) x 582 (V)
Scanning Area	0.19-inch (H) x 0.14-inch (V) (4.8 x 3.6 mm)	0.19-inch (H) x 0.15-inch (V) (4.9 x 3.7 mm)	0.19-inch (H) x 0.15-inch (V) (4.9 x 3.7 mm)
Scanning System	2:1 interlace	2:1 interlace	2:1 interlace
Scanning Lines NTSC PAL	525 lines 625 lines	525 lines 625 lines	525 lines 625 lines
Scanning Frequency NTSC PAL	Horizontal, 15.734 kHz Vertical, 59.94 Hz Horizontal, 15.625 kHz Vertical, 50.00 Hz	Horizontal, 15.734 kHz Vertical, 59.94 Hz Horizontal, 15.625 kHz Vertical, 50.00 Hz	Horizontal, 15.734 kHz Vertical, 59.94 Hz Horizontal, 15.625 kHz Vertical, 50.00 Hz
Synchronization	Internal LL (phase adjustable power supply synchronization)	Internal	Internal
Horizontal Resolution	650 TV lines, typical (color mode) 700 TV lines or more (B-W mode)	540 TV lines (color mode, at center) 570 TV lines (B-W mode)	540 TV lines (at center)
Minimum Illumination	0.1 lux (color mode) 0.003 lux (sensitivity up x32) 0.01 lux (B-W mode) 0.0003 lux (sensitivity up x32)	0.06 lux (color mode) 0.05 lux (B-W mode)	0.6 lux (color mode) 0.4 lux (B-W mode)
Dynamic Range	54 dB/128X	Adaptive Black Stretch	Adaptive Black Stretch
Day/Night Type	IR filter removal	IR filter removal	Simple
Video Output	1.0 Vp-p, NTSC/PAL composite, 75 ohms, BNC connector	1.0 Vp-p, NTSC/PAL composite, 75 ohms, BNC connector	1.0 Vp-p, NTSC/PAL composite, 75 ohms, BNC connector
White Balance	Auto Tracking White Balance/Automatic White Balance Control	Auto Tracking White Balance/Automatic White Balance Control	Auto Tracking White Balance/Automatic White Balance Control
Signal-to-Noise Ratio	50 dB (equivalent to AGC Off, weight On)	50 dB (equivalent to AGC Off, weight On)	50 dB (equivalent to AGC Off, weight On)
Lens	2X varifocal lens	3.6X varifocal lens	3.6X varifocal lens
Focal Length	3.8 ~ 8.0 mm	2.8 ~ 10.0 mm	2.8 ~ 10.0 mm
F-Number	f/1.4 (WIDE) to f/1.8 (TELE)	f/1.3 (WIDE) to f/3.1 (TELE)	f/1.3 (WIDE) to f/3.1 (TELE)
Focus Range	∞ to 3.9 ft (1.2 m)	∞ to 3.9 ft (1.2 m)	∞ to 3.9 ft (1.2 m)
Angle of View Horizontal Vertical	73.6° wide zoom; 35.6° telephoto zoom 53.4° wide zoom; 26.6° telephoto zoom	100.2° wide zoom; 27.4° telephoto zoom 73.3° wide zoom; 20.3° telephoto zoom	100.2° wide zoom; 27.4° telephoto zoom 73.3° wide zoom; 20.3° telephoto zoom
Adjusting Angle Panning Range Tilting Range Rotation Range	±170° ±75° ±100°	+180° to -140° ±75° ±100°	+180° to -140° ±75° ±100°

# TECHNICAL SPECIFICATIONS

## GENERAL

Construction	ABS plastic	
Enclosure	Polycarbonate resin	
Bubble	White	
Finish	White	
Weight		
Super Dynamic 5 (SD5) WDR Models	Unit	Shipping
Surface Mount	1.98 lb (0.9 kg)*	5 lb (1.85 kg)*
Flush Mount	3.53 lb (1.6 kg) <sup>†</sup>	10 lb (4.39 kg) <sup>†</sup>
Color and Day/Night Models		
Surface Mount	0.95 lb (0.43 kg)	2 lb (0.69 kg)
Flush Mount	1.57 lb (0.71 kg)	4 lb (1.78 kg)
Multilingual On-Screen Display	English, French, Spanish, German, Portuguese, Russian, Japanese	

\*The total surface mount weight includes 0.22 lb (0.1 kg) for the camera attachment.

<sup>†</sup>The total flush mount weight includes 1.54 lb (0.7 kg) for ceiling mount bracket assembly.

## ELECTRICAL

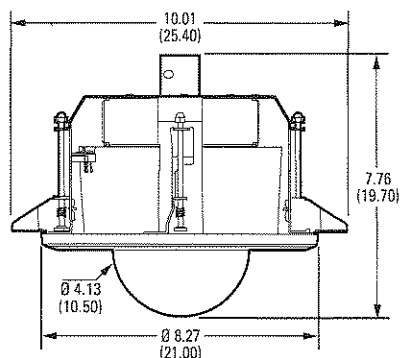
Power Source	Super Dynamic 5 (SD5) WDR Models	
NTSC	24 VAC, 60 Hz	PAL
	12 VDC, 280 mA	24 VAC, 50 Hz
		12 VDC, 280 mA
Color and Day/Night Models		
NTSC	24 VAC, 60 Hz	PAL
	12 VDC, 220 mA	24 VAC, 50 Hz
		12 VDC, 220 mA
Power Consumption	Super Dynamic 5 (SD5) WDR Models	
NTSC	3.4 W	PAL
		3.4 W
Color and Day/Night Models		
NTSC	2.7 W	PAL
		2.7 W

## ENVIRONMENTAL

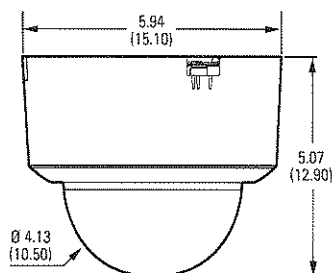
Environment	Indoor
Ambient Temperature	14° to 122°F (-10° to 50°C)
Ambient Humidity	Less than 90%

## CERTIFICATIONS/RATINGS/PATENTS

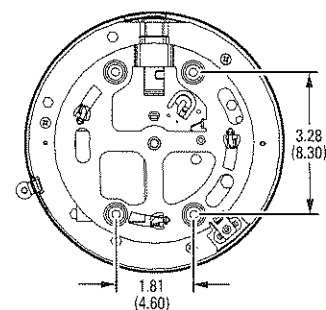
- CE, Class A
- FCC, Class A
- UL/cUL Listed
- C-Tick



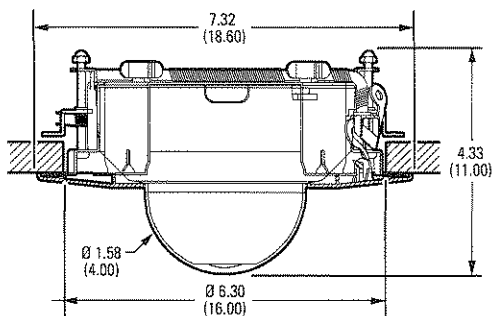
FLUSH MOUNT  
(DWS SERIES)



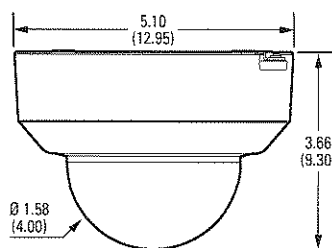
SURFACE MOUNT  
(DWS SERIES)



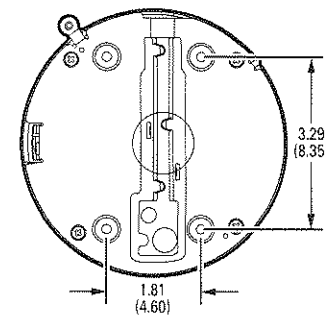
SURFACE MOUNT  
TOP VIEW (DWS SERIES)



FLUSH MOUNT  
(CH AND DN SERIES)



SURFACE MOUNT  
(CH AND DN SERIES)



SURFACE MOUNT TOP VIEW  
(CH AND DN SERIES)

NOTE: VALUES IN PARENTHESES ARE CENTIMETERS; ALL OTHERS ARE INCHES.

# TECHNICAL SPECIFICATIONS

## MODELS

Camera Type	Mount Type	Bubble	NTSC	PAL
Super Dynamic 5 (SD5) Day/Night WDR (DWS Series)	Surface	Clear	IS21-DWSV8S	IS21-DWSV8SX
		Smoke	IS20-DWSV8S	IS20-DWSV8SX
	Flush	Clear	IS21-DWSV8F	IS21-DWSV8FX
		Smoke	IS20-DWSV8F	IS20-DWSV8FX
Day/Night (DN Series)	Surface	Clear	IS21-DNV10S	IS21-DNV10SX
		Smoke	IS20-DNV10S	IS20-DNV10SX
	Flush	Clear	IS21-DNV10F	IS21-DNV10FX
		Smoke	IS20-DNV10F	IS20-DNV10FX
Color (CH Series)	Surface	Clear	IS21-CHV10S	IS21-CHV10SX
		Smoke	IS20-CHV10S	IS20-CHV10SX
	Flush	Clear	IS21-CHV10F	IS21-CHV10FX
		Smoke	IS20-CHV10F	IS20-CHV10FX

## RECOMMENDED MOUNTS

IS20-P	Pendant mount, indoor; compatible with Color and Day/Night models
IS20-WM	Wall mount, indoor; compatible with Color and Day/Night models
IS20DWS-P	Pendant mount, indoor; compatible with Super Dynamic 5 (SD5) day/night WDR models
IS20DWS-WM	Wall mount, indoor; compatible with Super Dynamic 5 (SD5) day/night WDR models
IS20-FK	Flush mount kit; compatible with surface mount Color and Day/Night models
IS20DWS-FK	Flush mount, indoor; compatible with Super Dynamic 5 (SD5) day/night WDR models
IS20-AP	Adapter plate for a 4S electrical box; compatible with all models

## RECOMMENDED POWER SUPPLIES

TF2000	Power supply for one 24 VAC camera, 20 VA
MCS Series	Multiple 24 VAC camera power supply, indoor

## OPTIONAL ACCESSORIES

TW3001PC	Passive twisted wire transmission for use in unshielded twisted pair (UTP) installations
13VD15-50	15 to 50 mm lens; compatible with DWS models only

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## IS50/IS51 Series Camclosure® 2 Camera System RUGGED OUTDOOR MINI DOME, SURFACE AND FLUSH MOUNT

### Product Features

- Vandal-Resistant Heavy Duty Outdoor Enclosure with Camera and Lens
- 3 Camera Options
  - Super Dynamic 5 (SD5)™ Day/Night Wide Dynamic Range (WDR)
  - Day/Night High Resolution
  - High Resolution Color
- Varifocal Lens
- Shipped Completely Assembled, Easy to Install
- 24 VAC or 12 VDC Operation, Autosensing
- Manual, 3-Axis (Pan/Tilt/Rotation) Positioning Allows Adjustment for Optimum Camera Rotation and Placement
- Service Connector for Video Output
- Available in Surface or Flush Mount Models with Smoked or Clear Domes
- Built-in Heater for Outdoor Environments

The **IS50/IS51 Series Camclosure® 2 Camera System** integrates a camera and lens package into a small, versatile rugged enclosure that can be mounted directly to, or recessed into, a ceiling or wall. The **IS50/IS51 Series** features a three-axis camera and lens positioning system that is capable of a wide variety of pan and tilt angles.

The **IS50/IS51 Series** offers three high resolution camera options suitable for a variety of outdoor environments:

- **Super Dynamic 5 (SD5)™ day/night wide dynamic range (WDR):** Features a high resolution (650 TVL) color camera with auto iris, varifocal lens, and auto back focus. Application examples include environments with difficult lighting that require extremely high sensitivity and dynamic range.
- **True day/night:** Features a high resolution (540 TVL) color camera with auto iris and varifocal lens. Application examples include environments that require color images during the day but use monochrome images at night with or without supplemental IR lighting.
- **Color:** Features a high resolution (540 TVL) color camera with auto iris, simple day/night functions, and varifocal lens. For use in all general-purpose environments.

All cameras in the **IS50/IS51 Series** offer adaptive black stretch (ABS) to provide optimal image quality in dark areas by increasing the visibility in those areas without sacrificing the image quality in brighter areas. In addition, in some cameras the **IS50/IS51 Series** features Super Dynamic 5 (SD5) technology, ensuring the best picture



IS51-DWSV8S MODEL

- Dehumidifier to Prevent Condensation (DWS Series Only)
- Auto Image Stabilizer to Compensate for External Vibration (DWS Series Only)

quality even in challenging environments. The Super Dynamic 5 (SD5) day/night WDR camera is equipped with auto back focus (ABF) and intelligent motion detection (i-VMD). The ABF feature automatically adjusts the camera's CCD position when installing or changing from color to black-white mode, saving time during setup and optimizing focus. The i-VMD feature is an intelligent built-in video motion detector that provides more efficient and reliable surveillance, while eliminating the loss of notification in vital scenes. Using advanced motion analytics provides the ability to accurately detect motion within a targeted area. The i-VMD analytics include three behaviors: motion detection, object abandonment/removal, and scene change detection.

The **IS50/IS51 Series** is shipped completely assembled, making installation fast and easy. To surface-mount the unit, remove it from the box, attach it to the mounting surface, and connect video and power. For recessed installations, use the supplied mounting bracket to install the unit inside a ceiling or wall.

The **IS50/IS51 Series** also features a complete line of optional mounting accessories. The IS50-P pendant mount allows the IS50/IS51 surface mount cameras to be adapted for pendant installations. The IS50-P can also be combined with the SWM-SR compact wall mount for wall mount installations. In addition, the IS50-FK flush mount kit allows a surface mount unit to be installed in a ceiling if the installation type should change after the original deployment.

**PELCO**

by **Schneider Electric**

International Standards  
Organization Registered Firm:  
ISO 9001 Quality System



C3473 / REVISED 5-16-11

# TECHNICAL SPECIFICATIONS

## CAMERA/OPTICS

	<b>IS50/IS51-DWS Series Super Dynamic (SD5) Day/Night Wide Dynamic Range Models</b>	<b>IS50/IS51-DN Series True Day/Night Models</b>	<b>IS50/IS51-CH Series Color Models with Simple Day/Night</b>
Image Sensor	1/3-inch interline transfer CCD	1/3-inch interline transfer CCD	1/3-inch interline transfer CCD
Effective Pixels NTSC PAL	976 (H) x 494 (V) 976 (H) x 582 (V)	768 (H) x 494 (V) 752 (H) x 582 (V)	768 (H) x 494 (V) 752 (H) x 582 (V)
Scanning Area	0.19-inch (H) x 0.14-inch (V) (4.8 x 3.6 mm)	0.19-inch (H) x 0.15-inch (V) (4.9 x 3.7 mm)	0.19-inch (H) x 0.15-inch (V) (4.9 x 3.7 mm)
Scanning System	2:1 interlace	2:1 interlace	2:1 interlace
Scanning Lines NTSC PAL	525 lines 625 lines	525 lines 625 lines	525 lines 625 lines
Scanning Frequency NTSC  PAL	Horizontal, 15.734 kHz Vertical, 59.94 Hz  Horizontal, 15.625 kHz Vertical, 50.00 Hz	Horizontal, 15.734 kHz Vertical, 59.94 Hz  Horizontal, 15.625 kHz Vertical, 50.00 Hz	Horizontal, 15.734 kHz Vertical, 59.94 Hz  Horizontal, 15.625 kHz Vertical, 50.00 Hz
Synchronization	Internal LL (phase adjustable power supply synchronization)	Internal	Internal
Horizontal Resolution	650 TV lines, typical (color mode) 700 TV lines or more (B-W mode)	540 TV lines (color mode, at center) 570 TV lines (B-W mode)	540 TV lines (at center)
Minimum Illumination	0.1 lux (color mode) 0.003 lux (sensitivity up x32) 0.01 lux (B-W mode) 0.0003 lux (sensitivity up x32)	0.06 lux (color mode) 0.05 lux (B-W mode)	0.6 lux (color mode) 0.4 lux (B-W mode)
Dynamic Range	54 dB/128X	Adaptive Black Stretch	Adaptive Black Stretch
Day/Night Type	IR filter removal	IR filter removal	Simple
Video Output	1.0 Vp-p, NTSC/PAL composite, 75 ohms, BNC connector	1.0 Vp-p, NTSC/PAL composite, 75 ohms, BNC connector	1.0 Vp-p, NTSC/PAL composite, 75 ohms, BNC connector
White Balance	Auto Tracking White Balance/ Automatic White Balance Control	Auto Tracking White Balance/ Automatic White Balance Control	Auto Tracking White Balance/ Automatic White Balance Control
Signal-to-Noise Ratio	50 dB (equivalent to AGC Off, weight On)	50 dB (equivalent to AGC Off, weight On)	50 dB (equivalent to AGC Off, weight On)
Lens	2X varifocal lens	3.6X varifocal lens	3.6X varifocal lens
Focal Length	3.8 ~ 8.0 mm	2.8 ~ 10.0 mm	2.8 ~ 10.0 mm
F-Number	f/1.4 (WIDE) to f/1.8 (TELE)	f/1.3 (WIDE) to f/3.1 (TELE)	f/1.3 (WIDE) to f/3.1 (TELE)
Focus Range	∞ to 3.9 ft (1.2 m)	∞ to 3.9 ft (1.2 m)	∞ to 3.9 ft (1.2 m)
Angle of View Horizontal Vertical	73.6° wide zoom; 35.6° telephoto zoom 53.4° wide zoom; 26.6° telephoto zoom	100.2° wide zoom; 27.4° telephoto zoom 73.3° wide zoom; 20.3° telephoto zoom	100.2° wide zoom; 27.4° telephoto zoom 73.3° wide zoom; 20.3° telephoto zoom
Adjusting Angle Panning Range Tilting Range Rotation Range	±170° ±75° ±100°	+180° to -140° ±75° ±100°	+180° to -140° ±75° ±100°



# TECHNICAL SPECIFICATIONS

## GENERAL

Construction	Aluminum die cast	
Enclosure	Polycarbonate resin	
Bubble		
Finish	Light gray	
Weight		
Super Dynamic 5 (SD5) WDR Models	Unit	Shipping
Surface Mount	3.76 lb (1.71 kg)*	6 lb (2.70 kg)*
Flush Mount	4.53 lb (2.05 kg) <sup>†</sup>	11 lb (4.89 kg) <sup>†</sup>
Color and Day/Night Models		
Surface Mount	3.20 lb (1.45 kg)	6 lb (2.40 kg)
Flush Mount	3.97 lb (1.80 kg)	11 lb (4.59 kg)
Multilingual On-Screen Display	English, French, Spanish, German, Portuguese, Russian, Japanese	

## ELECTRICAL

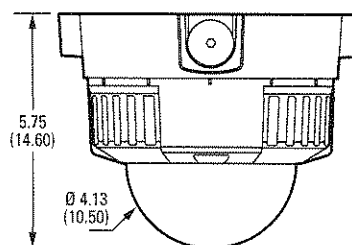
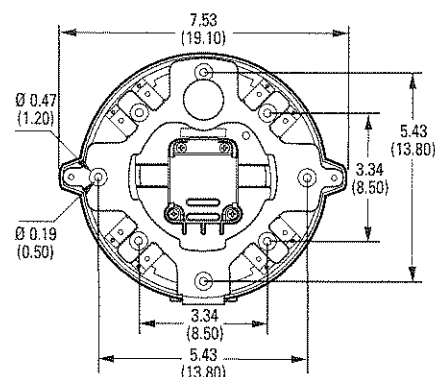
Power Source		
Super Dynamic 5 (SD5) WDR Models	NTSC	PAL
	24 VAC, 60 Hz	24 VAC, 50 Hz
	12 VDC <sup>‡</sup> , 280 mA	12 VDC <sup>‡</sup> , 280 mA
Color and Day/Night Models	NTSC	PAL
	24 VAC, 60 Hz	24 VAC, 50 Hz
	12 VDC <sup>‡</sup> , 220 mA	12 VDC <sup>‡</sup> , 220 mA
Power Consumption		
Super Dynamic 5 (SD5) WDR Models	NTSC	PAL
Without Heater	3.4 W	3.4 W
With Heater	14 W	14 W
Color and Day/Night Models	NTSC	PAL
Without Heater	2.9 W	2.9 W
With Heater	13.1 W	13.1 W

## ENVIRONMENTAL

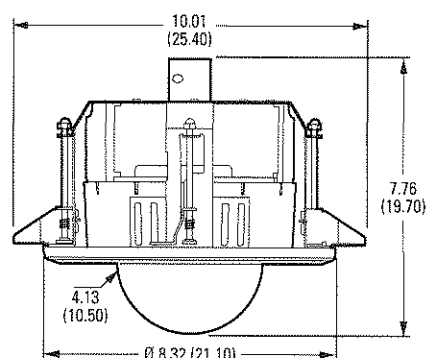
Environment	Outdoor
Ambient Temperature	
Without Heater	14° to 122°F (−10° to +50°C)
With Heater	−22° to 122°F (−30° to +50°C)
Ambient Humidity	Less than 90%
Impact Resistance	IEC 60068-2-75 Test Eh (50J)

## CERTIFICATIONS/RATINGS/PATENTS

- CE, Class A
- FCC, Class A
- UL/cUL Listed
- C-Tick
- Meets IP66 standards, IEC60529



**SURFACE MOUNT**



**FLUSH MOUNT**

\*The total surface mount weight includes 0.22 lb (0.1 kg) for the camera attachment.

<sup>†</sup>The total flush mount weight includes 1.54 lb (0.7 kg) for ceiling mount bracket assembly.

<sup>‡</sup>When using 12 VDC power supply, the heater is not available.

NOTE: VALUES IN PARENTHESES ARE CENTIMETERS; ALL OTHERS ARE INCHES.

# TECHNICAL SPECIFICATIONS

## MODELS

Camera Type	Mount Type	Bubble	NTSC	PAL
Super Dynamic 5 (SD5) Day/Night WDR (DWS Series)	Surface	Clear	IS51-DWSV8S	IS51-DWSV8SX
		Smoke	IS50-DWSV8S	IS50-DWSV8SX
	Flush	Clear	IS51-DWSV8F	IS51-DWSV8FX
		Smoke	IS50-DWSV8F	IS50-DWSV8FX
Day/Night (DN Series)	Surface	Clear	IS51-DNV10S	IS51-DNV10SX
		Smoke	IS50-DNV10S	IS50-DNV10SX
	Flush	Clear	IS51-DNV10F	IS51-DNV10FX
		Smoke	IS50-DNV10F	IS50-DNV10FX
Color (CH Series)	Surface	Clear	IS51-CHV10S	IS51-CHV10SX
		Smoke	IS50-CHV10S	IS50-CHV10SX
	Flush	Clear	IS51-CHV10F	IS51-CHV10FX
		Smoke	IS50-CHV10F	IS50-CHV10FX

## RECOMMENDED MOUNTS

IS50-P	Pendant mount, outdoor; compatible with all models
IS50-CM	Corner mount, indoor or outdoor; compatible with all models
SWM-SR	Compact wall mount, light gray finish; can be used with IS50-P for wall-mount installations; can also be adapted for corner or pole applications
WMVE-SR	Wall mount, light gray; can be used with IS50-P for wall-mount installations that require increased vandal resistance or surface mount conduit
IS50-FK	Flush mount kit; compatible with surface mount models only

## RECOMMENDED POWER SUPPLIES

TF2000	Power supply for one 24 VAC camera, 20 VA
MCS Series	Multiple 24 VAC camera power supply, indoor
WCS Series	Single/multiple 24 VAC camera power supply, outdoor

## OPTIONAL ACCESSORIES

TW3001PC	Passive twisted wire transmission for use in unshielded twisted pair (UTP) installations
13VD15-50	15 to 50 mm lens; compatible with DWS models only

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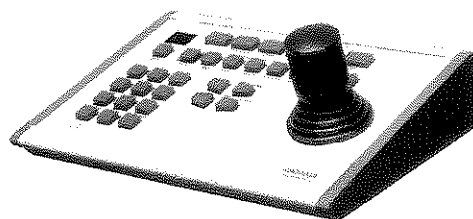
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## KBD300A Keyboard

### FULL-FUNCTIONALITY, FIXED/VARIABLE SPEED, PTZ CONTROL

#### Product Features

- Keyboard to Control:
  - CM6700/CM6800/CM9760-SAT/CM9700 Matrix Switchers
  - DX8100 Series Digital Video Recorder
  - Genex® Multiplexer When Used with CM6700 and CM6800
  - Up to 16 Receivers Directly from Keyboard (such as Spectra®, Esprit®, and ExSite®)
- Automatic Recognition of CM6700/CM6800 and Direct P Modes
- Joystick Control of PTZ Functions
- Preset Position and Pattern Control



- Auxiliary Operation
- Auto/Random/Frame Scanning
- Programming of CM6700/CM6800/CM9760-SAT/CM9760-MDA

The **KBD300A** keyboard is a full-function, desktop keyboard controller that can be used in a variety of applications.

A barrel-type joystick provides precise pan and tilt control of fixed speed and variable speed receivers. Twisting the joystick clockwise or counterclockwise zooms the lens in or out.

Keys select cameras and monitors; operate presets, patterns, auxiliaries, and sequences; open and close the iris; zoom and focus the lens; and start and stop auto, frame, and random scanning.

The keyboard can be used in six modes of operation: CM6700/CM6800/CM9760-SAT Mode, Direct P, Direct D, CM6700 ASCII, CM6800 ASCII/DX8100, and CM9760-MDA. The **KBD300A** keyboard automatically recognizes CM6700/CM6800 and Direct P modes. The **KBD300A** must be operated in CM6700 ASCII mode when used with the DX4500/DX4600 Series DVRs and the Digital Sentry® DS ControlPoint server or remote client. The **KBD300A** keyboard must run firmware 5.0 or later to operate in CM6700 ASCII mode.

In the first two modes, the keyboard is plugged into a CM6700, CM6800, or CM9760-SAT switcher/controller unit (SCU) and is used to program and operate the SCU. The maximum number of keyboards per unit is eight (CM6700 and CM6800-32X6), sixteen (CM6800-48X8, CM6800E-48X8, and CM6800-96X16) or four (CM9760-SAT). In CM6700/CM6800 applications, the keyboard can control cameras connected directly to the SCU or through an MX4000 Series Genex® multiplexer.

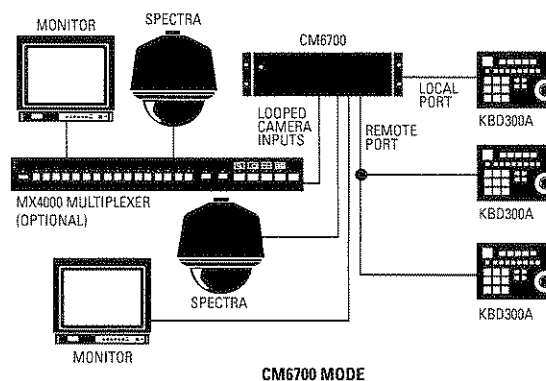
If you do not need all the features of the CM6700/CM6800 SCU but want the same keyboard functionality, then one keyboard can be wired directly to camera receivers in Direct P or Direct D mode (KBD-KIT is required).

Up to 16 receivers can be wired to a keyboard; however, a switcher such as an MS500 or VA6100 is required to route video to the monitor. Direct P or Direct D mode uses 2-wire control of receivers using Pelco P or Pelco D protocols.

The **KBD300A** keyboard can also be used for on-screen programming of the CM9760-MDA master distribution amplifier.

When used with the CM9760-DMR data manager, up to four **KBD300A** keyboards can be used to control a single Pelco P or Pelco D protocol device such as a Spectra® dome or an Esprit®/ExSite® positioning system.

The optional KBD300USBKIT is required to connect the KBD300A keyboard to the DX4500/DX4600. The KBD300USBKIT is also required to control certain functions of DS ControlPoint software.



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International Standards  
Organization Registered Firm:  
ISO 9001 Quality System



C527 / REVISED 7-31-09

# TECHNICAL SPECIFICATIONS

## MODEL

KBD300A

Desktop keyboard with full switching and programming capabilities, plus joystick control of PTZ functions

## ELECTRICAL

Input Voltage 12 VAC or  $\pm 12$  VDC  
Power Consumption 5 W  
Keyboard Connector RJ-45, 8-pin, modular (female)

### Keyboard Communication

#### CM6700/CM6800/CM9760-SAT Mode

Interface RS-485  
Protocol Pelco ASCII  
Baud 9600  
Communication  
Parameters 8 data bits, odd parity, 1 stop bit

#### CM6700 ASCII Mode

Interface RS-422  
Protocol Pelco ASCII  
Baud 9600  
Communication  
Parameters 8 data bits, odd parity, 1 stop bit

#### CM6800 ASCII Mode/DX8100

Interface RS-485  
Protocol Pelco ASCII  
Baud 9600  
Communication  
Parameters 8 data bits, odd parity, 1 stop bit

#### Direct P Mode

Interface RS-485  
Protocol Pelco P  
Baud 4800  
Communication  
Parameters 8 data bits, no parity, 1 stop bit

#### Direct D Mode

Interface RS-485  
Protocol Pelco D  
Baud 2400  
Communication  
Parameters 8 data bits, no parity, 1 stop bit

## GENERAL

Keyboard Keypad Electromechanical  
Joystick 3-axis, vector-solving with twisting, return-to-center head  
Display Red LED, 7-segment, 2 cells  
Dimensions 2.25" H x 9.50" W x 7.125" D  
(5.72 x 24.13 x 18.10 cm)

Weights  
Unit 2.5 lb (1.12 kg)  
Shipping 5 lb (2.26 kg)

## ENVIRONMENTAL

Ambient Operating Temperature 20° to 120°F (-7° to 49°C)  
Humidity 10% to 90%, noncondensing

## CERTIFICATIONS/PATENTS

- CE, Class B
- FCC, Class B
- UL/cUL Listed
- C-Tick
- U.S. Patent D-464,654

## SUPPLIED ACCESSORIES

25-foot (7.6 m) RJ-45 data cable

## OPTIONAL ACCESSORIES

### KBDKIT

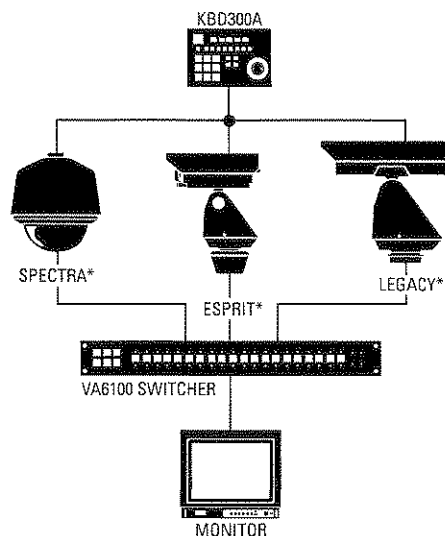
Remote keyboard wiring kit. Required if connecting KBD300A keyboards to the Remote Keyboard Port on the SCU (CM6700/CM6800 Mode) or when using a single keyboard in Direct Mode applications. Includes two RJ-45 wall blocks and one 120 VAC to 12 VAC transformer. Maximum cable distance for RS-422/RS-485 communication over 24-gauge wire is 4,000 feet (1,219 m). Use shielded twisted pairs cable that meets basic requirements for RS-422/RS-485 applications. (One wall block and transformer required for each keyboard.)

### KBDKIT-X

Same as KBDKIT except includes 230 VAC to 12 VAC transformer.

### KBD300USBKIT

Wiring kit to attach a KBD300A to a USB port on either the DX4500/DX4600 or DS ControlPoint on the DS DVR or remote client. Includes: KBDKIT/KBDKIT-X wiring kit (keyboard power supply and RJ-45 junction box), PV140 RS-232 to RS-422 (DB9 connector) converter and power supply (included but not used), and USB to RS-232C adapter cable.



\* SPECTRA AND ESPRIT HAVE BUILT-IN RECEIVERS.  
LEGACY REQUIRES LRD41C SERIES RECEIVER.

DIRECT MODE

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## PS20 Series Scanner INDOOR/OUTDOOR, MEDIUM DUTY

### Product Features

- High Reliability: No Worm Gears to Adjust, No Chain to Lubricate, No Gear Head on Motor
- Scans Past 360°, Eliminates Blind Spots
- 2-Year Unlimited Continuous Duty Warranty
- Auto and Random Scan Operation
- 3 Speed Settings
- 120 VAC and 24 VAC Models
- Upright or Inverted Operation
- Magnetic Limit Stops Microprocessor Controlled
- Quiet, Smooth Operation
- Completely Sealed Unit, Meets NEMA Type 4 Standards
- Maximum Load 35 lb (15.75 kg)

Backed by a two-year unlimited continuous duty warranty, Pelco's **PS20 Series** scanner is perfect for indoor and outdoor installations. Ruggedly constructed and completely sealed, the scanner features stepper motor technology for increased reliability; three speed settings (3, 6, and 12 degrees per second) selectable at installation; and microprocessor-controlled magnetic limit stops for quiet smooth operation.

The **PS20** is ideal for a wide array of surveillance installations and reduces the need for numerous fixed cameras. Designed to operate with loads up to 35 pounds (15.75 kg), this medium duty scanner is easy to install and can be mounted to any flat surface in an upright or inverted position.

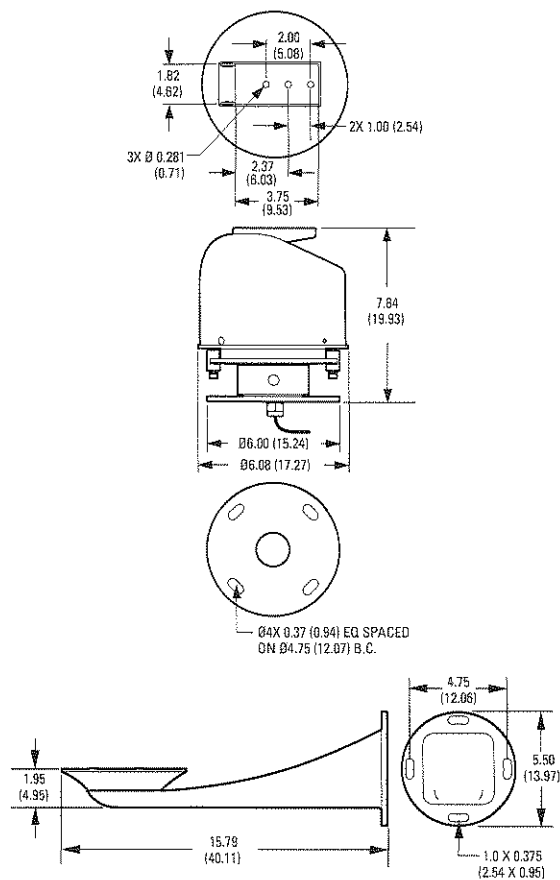
The scanner is capable of pan rotation past 360 degrees, to 380 degrees, for a complete panoramic view. The unit also has a manually adjustable tilt table for viewing from 0 (zero) degrees horizontal to 65 degrees tilt position.

The **PS20** scanner is capable of auto and random scan operation without the need for a controller. Connected to a Pelco MPTAZ Series control, the scanner can operate continuously, randomly, and manually. The **PS20 Series** scanner is compatible with all Pelco scanner and pan/tilt hard wire controllers.

The 24 VAC **PS20** scanner is available in easy-to-order ScannerPak systems. Systems include an EH3512-HD enclosure, sun shroud, wall mount, and choice of pre-installed camera configuration (camera and lens). Refer to the ScannerPak Selection Guide for system model numbers.



PS20 WITH EH3512-2HD, SUN SHROUD, AND PSWM



NOTE: VALUES IN PARENTHESES ARE CENTIMETERS; ALL OTHERS ARE INCHES.



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International Standards  
Organization Registered Firm:  
ISO 9001 Quality System



C361 / REVISED 10-27-10

# TECHNICAL SPECIFICATIONS

## MODELS

PS20	Medium duty scanner, 120 VAC
PS20-24	Medium duty scanner, 24 VAC

## MECHANICAL

Pan	0 to 360° movement in horizontal plane
Speed	3°, 6°, and 12° per sec
Maximum Load	35 lb (15.7 kg) centered
Operation	Upright or inverted
Bearings	Heavy duty ball bearings
Overload Protection	Thermal protected

## ELECTRICAL

Input Voltage	
PS20	95 to 130 VAC
PS20-24	22 to 28 VAC
Power Requirements	
PS20	0.25A (30 VA) at 120 VAC
PS20-24	0.75A (20 VA) at 24 VAC
Connectors	Wire nuts (provided), butt splice (not provided)
Motors	Stepper motor, continuous duty, instantaneous reversing
Limit Switches	Auto scan switching; external adjustment
Conductors	7, unshielded (functions: left, right, auto, motor common, safety ground, AC HI, AC LO)
Maximum Operating Distances	
	Cable Size      Maximum Distance
PS20	20 AWG (0.5 mm <sup>2</sup> )      2,300 ft (701 m)
	18 AWG (1.0 mm <sup>2</sup> )      3,700 ft (1,127 m)
	16 AWG (1.5 mm <sup>2</sup> )      5,900 ft (1,798 m)
PS24	20 AWG (0.5 mm <sup>2</sup> )      5,600 ft (1,706 m)
	18 AWG (1.0 mm <sup>2</sup> )      9,000 ft (2,743 m)
	16 AWG (1.5 mm <sup>2</sup> )      14,300 ft (4,368 m)

## GENERAL

Construction	Aluminum
Finish	Gray polyester powder coat
Environment	Indoor/outdoor; -10° to 120°F (-23° to 49°C)
Unit Weight	9.9 lb (4.5 kg)
Shipping Weight	12 lb (5.4 kg)

## CERTIFICATIONS/RATINGS/PATENTS

- CE, Class A
- FCC, Class B
- UL/cUL Listed
- Meets NEMA Type 4, IP66 standards
- U.S. Patent D473,873S

## RECOMMENDED CONTROLS

MPS524DT	Desktop control for PS20-24 scanner
MPTAZ Series	Desktop scanner and zoom lens control capable of auto/random scan

## RECOMMENDED ENCLOSURE

EH3010/EH3014	Small, indoor enclosure
EH4010/EH4014	Small, indoor enclosure
EH3508/EH3512	Small, indoor/outdoor enclosure

## RECOMMENDED MOUNTS

PSWM	Wall mount for PS20 Series
PM2000, PM2010	Universal ceiling/pedestal mount
ECM100	Corner mount; use with PSWM wall mount
EPM	Pole mount; use with PSWM wall mount

## SCANNERPAK SELECTION GUIDE

Available ScannerPak systems are listed below. Refer to each component's specification sheet for details about each product.

Scanner	Camera	Lens	Enclosure	Accessories	Model Number
24 VAC (PS20-24)	540 TVL, NTSC (C10CH-6)	Varifocal (13VA3-8)	Indoor/outdoor with 24 VAC heater-defroster (EH3512-2HD)	Sun shield (SS3512) Wall mount (PSWM)	PS20-2AJV3W
24 VAC (PS20-24)	480 TVL, NTSC (CC3701H-2)	Varifocal, auto iris (13VD3-8)	Indoor/outdoor with 24 VAC heater-defroster (EH3512-2HD)	Sun shield (SS3512) Wall mount (PSWM)	PS20-2CBV3AW
24 VAC (PS20-24)	480 TVL, NTSC (CC3701H-2)	Varifocal (13VA3-8)	Indoor/outdoor with 24 VAC heater-defroster (EH3512-2HD)	Sun shield (SS3512) Wall mount (PSWM)	PS20-2CBV3W
24 VAC (PS20-24)	480 TVL, PAL (CC3701H-2X)	Varifocal (13VA3-8)	Indoor/outdoor with 24 VAC heater-defroster (EH3512-2HD)	Sun shield (SS3512) Wall mount (PSWM)	PS20-2CDV3W

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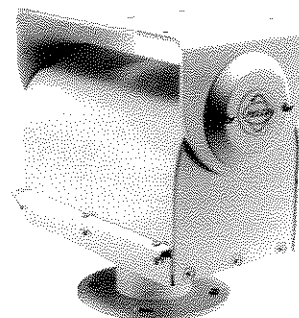
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## PT570P/PT570-24P Pan/Tilt OUTDOOR, MEDIUM DUTY

### Product Features

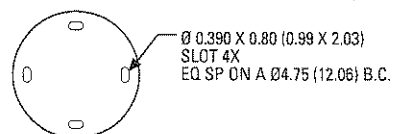
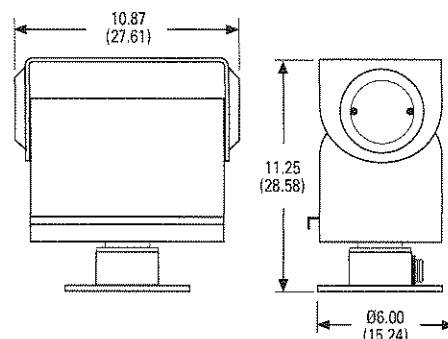
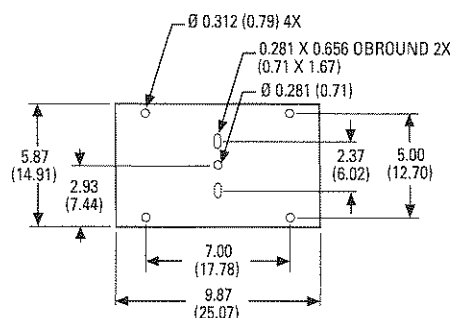
- Easily Serviced
- Inverted Operation
- External Limit Stops
- Outdoor Applications
- Adjustable Worm-Gear Final Drive
- 120 VAC or 24 VAC Operation
- Capable of Auto/Random Scan Operation when Used with Appropriate Control
- Maximum Load 40 lb (18.14 kg)



The **PT570P** and the **PT570-24P** are medium duty outdoor pan/tilts capable of handling loads up to 40 pounds (18.14 kg). Both units feature rugged worm-gear final drives to minimize backlash and prevent wind drift. The drives are fully adjustable for wear.

Control voltages are 120 VAC for the **PT570P** and 24 VAC for the **PT570-24P**. Construction is of aluminum, and the units are completely sealed for all-weather use. The **PT570P** and **PT570-24P** are recommended for use with our EH4700 Series environmental enclosures.

An optional factory installed heater is available to allow operation to  $-50^{\circ}\text{F}$  ( $-45^{\circ}\text{C}$ ).



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ALL OTHERS ARE INCHES.



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International Standards  
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ISO 9001 Quality System



C330 / REVISED 10-27-10

# TECHNICAL SPECIFICATIONS

## MODELS

PT570P	Medium duty pan/tilt, 120 VAC
PT570P/PP	Medium duty pan/tilt with presets, 120 VAC
PT570-24P	Medium duty pan/tilt, 24 VAC
PT570-24P/PP	Medium duty pan/tilt with presets, 24 VAC

## ELECTRICAL

Input Voltage	
PT570P, PT570P/PP	120 VAC, 50/60 Hz
PT570-24P, PT570-24P/PP	24 VAC, 50/60 Hz
Pan/Tilt Power Requirements	
PT570P, PT570P/PP	
Running	0.18 A (21.6 VA)
Starting	0.27 A (32.4 VA)
PT570-24P, PT570-24P/PP	
Running	0.9 A (21.6 VA)
Starting	1.35 A (32.4 VA)
Connectors	AMP CPC type (mate supplied)
Motors	Two-phase induction type, instantaneous reversing
Limit Switches	5 A each (pan and tilt); external adjustment
Conductor Requirements	6 or 7, unshielded (functions: left, right, up, down, motor common, safety ground); no additional conductors for auto scan when used with solid-state control; PP option requires 4 additional conductors; HB option requires 2 additional conductors

### Maximum Operating Distances\*

PT570P and PT570P/PP		
	Cable Size	Maximum Distance
6 Conductors	20 AWG (0.5mm <sup>2</sup> )	1,045 ft (319 m)
	18 AWG (1.0mm <sup>2</sup> )	1,665 ft (507 m)
	16 AWG (1.5mm <sup>2</sup> )	2,640 ft (805 m)
7 Conductors <sup>†</sup>	20 AWG (0.5mm <sup>2</sup> )	2,080 ft (634 m)
	18 AWG (1.0mm <sup>2</sup> )	3,330 ft (1,015 m)
	16 AWG (1.5mm <sup>2</sup> )	5,285 ft (1,611 m)
PT570-24P and PT570-24P/PP		
	Cable Size	Maximum Distance
6 Conductors	20 AWG (0.5mm <sup>2</sup> )	40 ft (12 m)
	18 AWG (1.0mm <sup>2</sup> )	65 ft (20 m)
	16 AWG (1.5mm <sup>2</sup> )	110 ft (34 m)
7 Conductors <sup>†</sup>	20 AWG (0.5mm <sup>2</sup> )	85 ft (26 m)
	18 AWG (1.0mm <sup>2</sup> )	135 ft (41 m)
	16 AWG (1.5mm <sup>2</sup> )	220 ft (67 m)

\*Distances are calculated with both motors (pan and tilt) running and assuming a 10% voltage drop.

<sup>†</sup> Using 2-wire motor common.

## MECHANICAL

Pan	0 to 355° movement in horizontal plane
Speed	6°/sec ±1°
Torque	10 ft-lb with specified voltage
Tilt	±90° movement in vertical plane
Speed	3°/sec ±0.5°
Torque	20 ft-lb with specified voltage
Maximum Load	40 lb (18.1418.14 kg) at 5 inches (12.7 cm) from tilt table surface to center of gravity
Gearing	Adjustable worm-gear final drive to prevent drift and minimize backlash
Bearings	
Pan	Heavy-duty ball bearings
Tilt	Oilite bronze bushing
Braking	Mechanical friction-type
Duty Cycle	50% duty cycle; 30 minute rating

## GENERAL

Construction	Aluminum plate; all internal parts corrosion protected
Finish	Gray polyester powder coat
Environment	Outdoor; -10° to 120°F (-23° to 49°C)
Unit Weight	22 lb (9.9 kg)
Shipping Weight	25 lb (11.5 kg)

## CERTIFICATIONS/RATINGS

- CE, Class B (PT570-24P, PT570-24P/PP)
- UL Listed
- Meets NEMA Type 3R standards

## OPTIONAL ACCESSORY

HB/570	Blanket heater in cover, 75 W; allows operation to -50°F (-45°C); 120 VAC, 50/60 Hz (factory installed option)
--------	---

## RECOMMENDED CONTROLS

Coaxitron® or Matrix	Refer to individual specification sheets for information
MPT24DT	Desktop control for 24 VAC pan/tilt
MPTAZ Series	Desktop pan/tilt and zoom lens control with auto/random scan

## RECOMMENDED ENCLOSURE

EH4700 Series	Environmental enclosure
---------------	-------------------------

## RECOMMENDED MOUNTS

PA2000	Adapter plate; required when using WM2000
PM2000, PM2010	Ceiling/pedestal mount; maximum load 125 lb (56.7 kg)
ST1	Support strut; use with WM2000/PM2000/PM2010
WM2000	Wall mount; maximum load 75 lb (34 kg)

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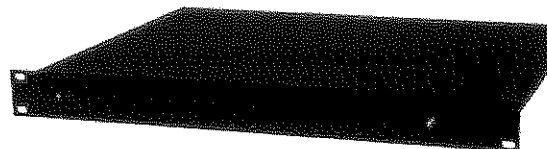


## RCS Series Rack Power Supply

### MULTIPLE RACK MOUNTED POWER SUPPLY, INDOOR

#### Product Features

- 1RU Models to Fit Standard EIA 19" Rack
- Removable Terminal Strips With Clamp-Down Connectors
- Individual Green LED Indicators for Each Output
- 26 VAC Available with 8, 16, or 32 Outputs
- 13" Deep Units for Easy Back Access
- Fuses or Self-Resetting Circuit Breakers on Each Output
- Removable 3-Wire Grounded AC Line Cord
- Class 2 Rated (breaker models)
- Optional Locking Face Plate

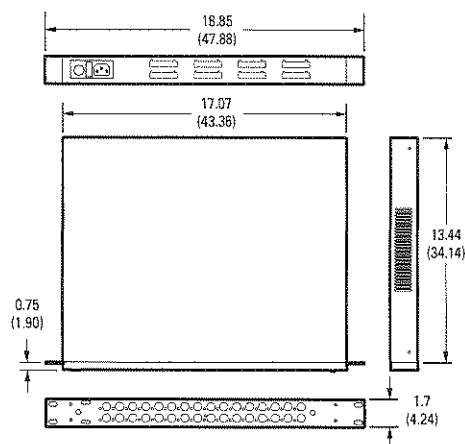


RCS32F20 MODEL SHOWN WITHOUT OPTIONAL LOCKING FACE PLATE

The **RCS Series** rack power supply is designed to decrease installation time, provide better accessibility to outputs, offers quick power connections, and saves space. Designed for a standard EIA 19-inch rack for powering up to 32 units, the **RCS Series** saves valuable rack space as a 1RU (one rack unit) model.

Removable terminal strips with clamp-down connectors are made for quicker power up and power down of the units. These terminal strips lock tightly to hold wire in place; but they can be easily removed for a simpler installation. This rack mount power supply features a green LED front panel display to indicate individual output status. The rack mount enclosure is 13 inches deep for easy access and serviceability. The **RCS Series** delivers maximum flexibility for large multi-camera projects by providing 26 volt alternating current outputs. All models include a main LED power status indicator, and a removable three-wire grounded AC line cord.

Models are included for both fuse or self-resetting circuit breakers on each output with 5, 10, or 20 amp capacities. Individual fuse holders are easily accessible from the front of the unit. Breaker models include self-resetting individual breakers for each output. All models are single phase and operate on either 50 or 60 Hz.



(MEASUREMENTS INCLUDE OPTIONAL LOCKING FACE PLATE)

NOTE: VALUES IN PARENTHESES ARE CENTIMETERS;  
ALL OTHERS ARE INCHES.



C807 / REVISED 8-07



International Standards  
Organization Registered Firm;  
ISO 9001 Quality System



# TECHNICAL SPECIFICATIONS

## MODELS

Outputs	Amps	Breaker	Fuse
8	5	RCS8B5	RCS8F5
16	10	RCS16B10	RCS16F10
16	20	RCS16B20	RCS16F20
32	20	RCS32B20	RCS32F20

## OPTIONAL ACCESSORIES

RCSFP Optional Locking Face Plate (sold separately)

## FRONT PANEL

Fuse Models Removable fuse holders  
All Models Input power LED indicator, individual output LED indicators

## PHYSICAL

Mounting	1RU, standard EIA 19" rack	
Dimensions	13.44" D x 18.85" W x 1.7" H (34.14 x 47.88 x 4.24 cm)	
Environment	Indoor	
Operating Temperature	50° to 120° F (10° to 49° C)	
Power Input	Universal 3-prong power connector	
Included Power Cable	1 standard (117 VAC, 3 prongs, 6 ft or 1.8 m) cable	
Construction	Steel cabinet	
Finish	Charcoal black polyester powder coat	
Weights	Unit and shipping weights	
Model	Unit Weight	Shipping Weight
RCS8F5	11.770 lb (5.340 kg)	14 lb (7 kg)
RCS8B5	11.655 lb (5.230 kg)	14 lb (7 kg)
RCS16F10	14.925 lb (6.770 kg)	17 lb (8 kg)
RCS16B10	14.505 lb (6.580 kg)	17 lb (8 kg)
RCS16F20	21.000 lb (9.525 kg)	23 lb (11 kg)
RCS16B20	20.730 lb (9.403 kg)	23 lb (11 kg)
RCS32F20	21.715 lb (9.850 kg)	24 lb (11 kg)
RCS32B20	21.335 lb (9.674 kg)	24 lb (11 kg)

## PRODUCT CAPACITY

This chart contains a partial list of compatible products and the number of units that may be powered by each power supply. Capacity is based on the VA rating of each listed product.

Product	Power Supply Model			
	RCS8F5/ RCS8B5 130VA	RCS16F10/ RCS16B10 260VA	RCS16F20/ RCS16B20 520VA	RCS32F20/ RCS32B20 520VA
Fixed Camera 12VA	8*	16*	16*	32*
Indoor Spectra® 25VA	5	10	16*	20
Esprit® 70VA	1	3	7	7

\*The number of cameras is limited by the number of output channels, not by the power output.

## POWER

Power Consumption

Model	Input Voltage	Input Fuse	Maximum Load	BTU/H*
RCS8B5/ RCS8F5	115 VAC	1.6 A	143 W, 1.24 A	72
	230 VAC	1 A	143 W, 0.62 A	72
RCS16B10/ RCS16F10	115 VAC	3 A	280 W, 2.44 A	123
	230 VAC	1.6 A	282 W, 1.22 A	119
RCS16B20/ RCS16F20	115 VAC	5 A	549 W, 4.27 A	313
	230 VAC	3 A	542 W, 2.35 A	198
RCS32B20/ RCS32F20	115 VAC	5 A	549 W, 4.27 A	313
	230 VAC	3 A	542 W, 2.35 A	198

\*BTU/H values for the transformer are equal to the difference between input power and output power.

Input Voltage	115 VAC 60Hz or 230 VAC 50Hz (± 10%), selectable
Input Fuse	Varies by model
Output Voltage	26 VAC (all models)
Output Current	Varies by model
Output Fuse Rating	3 A
Fuse Type	5 x 20 mm AG Fast Blow
Circuit Breaker Ratings	3 A
Output Connectors	Four-output removable terminal strips with individually secured locking wire entry
Output Wire Size	16-20 AWG

## RECOMMENDED WIRING DISTANCES

Input Voltage	Total VA Consumed	Wire Gauge*		
		20 AWG (0.5 mm <sup>2</sup> ) Consumed	18 AWG (1.0 mm <sup>2</sup> ) Consumed	16 AWG (1.5 mm <sup>2</sup> ) Consumed
26 VAC	10	333 ft (101 m)	529 ft (161 m)	840 ft (256 m)
	20	166 ft (50 m)	264 ft (80 m)	420 ft (128 m)
	30	111 ft (33 m)	176 ft (53 m)	280 ft (85 m)
	50	66 ft (20 m)	105 ft (32 m)	168 ft (51 m)

\*Individual output cannot exceed this rating, and the total of all outputs cannot exceed the overall rating of the power supply (see *Models* section)

## CERTIFICATIONS/RATINGS

- CE
- Class 2 (breaker models)
- UL Listed

At the time of this printing, all other certifications are pending. Please consult the factory, our website ([www.pelco.com](http://www.pelco.com)), or the most recent B.O.S.S.® update for the current status of certifications.



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# Spectra® IV SE Series Dome Systems

## PREMIER INTEGRATED DOME SYSTEM

### Product Features

- 3 Autofocus, High Resolution Integrated Camera/Optics Packages; Multiple Back Box Models
- Day/Night, 540 TVL, 128X Wide Dynamic Range (WDR), Motion Detection, and Electronic Image Stabilization (SD435 Series)
- Day/Night, 540 TVL, 80X Wide Dynamic Range, and Motion Detection (SD4CBW Series)
- Window Blanking
- Camera Title Overlay, 20 User-Definable Characters
- Horizontal and Zone Blanking
- On-Screen Compass and Tilt Display
- Password Protection
- Freeze Frame During Presets
- Built-in Surge and Limited Lightning Protection
- Integrated Passive Unshielded Twisted Pair (UTP) Circuit

### Modularity

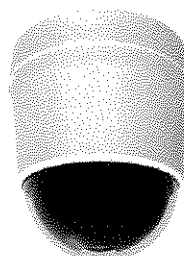
Spectra® IV SE was designed with ease of installation and ease of maintenance in mind. Each dome system consists of three components: a back box, a dome drive, and a lower dome. These three system components are interchangeable with other Spectra IV SE dome systems, making retrofitting and application adjustments simple. Also, dome drives and lower domes can be removed and replaced reducing maintenance time.

### Back Box

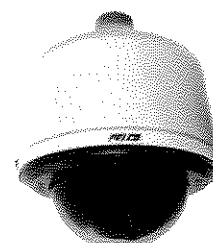
Spectra IV SE back box options include the following models: environmental in-ceiling (ideal for outdoor soffits), indoor in-ceiling, indoor surface mount, standard and environmental pendant, heavy-duty, pressurized, and stainless steel. Each back box model features built-in **back box memory** to store camera and location-specific dome settings, including labels, presets, patterns, and zones. A **passive UTP circuit** is located on the door assembly for convenient video transmission through twisted pair wire. For added flexibility, Pelco fiber modules can also be attached to the door assembly for transmission over single-mode or multimode fiber.

### Dome Drive

The Spectra IV SE dome drive's unique **integrated optics package** incorporates many advanced features that allow the system to produce high quality video in the most difficult environments. All cameras in Spectra IV SE dome drives feature **LowLight™** technology allowing the cameras to compensate for scenes where minimal light is present. The **35X day/night camera** features built-in motion detection and advanced **128X wide dynamic range** that enables the system to compensate for scenes where dramatic contrasts in lighting are present. **Electronic image stabilization** digitally reduces blurring of the camera image due to vibration caused by external sources such as wind and traffic. The 23X day/night camera features built-in motion detection and 80X wide dynamic range. The 22X color camera features an EXview HAD™ imager for increased sensitivity.



SURFACE MOUNT MODEL  
SD435-SMW-0



PENDANT MODEL  
SD4CBW-PG-0

- Internal Scheduling Clock
- Ability to Add IP Network Capability by Purchasing Optional TXB-IP Module

### Lower Dome

Special consideration was taken when designing the Spectra IV SE lower dome bubble to ensure that an optimal optical relationship between the lens and bubble was achieved, providing crystal clear video at long focal lengths.

### Dome Systems

Spectra IV SE dome systems feature many software enhancements that increase performance and make programming and operation easy. An **internal scheduling clock** allows for the scheduling of presets and patterns. **Window blanking** enables a user to program up to eight, four-sided, user-defined privacy areas. **Password protection** prevents unauthorized users from changing the system settings. Programmable **on-screen compass and tilt display** provides positioning information when needed. Intuitive multilingual on-screen programming can be displayed in English, Spanish, Portuguese, Italian, French, German, Russian, Polish, Turkish, and Czech.

Spectra IV SE's variable speed capabilities range from a smooth, fast pan motion of 400 degrees per second to a smooth "creep" speed of 0.1 degree per second. The system is capable of continuous 360 degrees rotation and has an **"auto flip"** feature that allows the dome to rotate 180 degrees and reposition itself for uninterrupted viewing of any subject that passes directly beneath the dome.

In addition, with the optional Pelco TXB-IP module, you can add IP network capability at any time to a Spectra IV dome system without losing analog viewing and control. By snapping the TXP-IP module into the back box, you can stream network video to a Web browser, Endura®, Integral Digital Sentry®, or third-party software recording solution allowing integration into virtually any IP-based system.



by **Schneider Electric**

International Standards  
Organization Registered Firm:  
ISO 9001 Quality System



C2448 / REVISED 12-19-08

# TECHNICAL SPECIFICATIONS

## CAMERA/OPTICS

	Day/Night (35X)	Day/Night (23X)	Color (22X)
Signal Format	NTSC (DD4CBW35) PAL (DD4CBW35-X)	NTSC (DD4CBW23) PAL (DD4CBW23-X)	NTSC (DD4C22) PAL (DD4C22-X)
Scanning System	2:1 Interlace	2:1 Interlace	2:1 Interlace
Image Sensor	1/4-inch EXview HAD™	1/4-inch progressive scan CCD	1/4-inch EXview HAD CCD
Effective Pixels			
NTSC	768 (H) X 494 (V)	768 (H) X 494 (V)	768 (H) X 494 (V)
PAL	752 (H) X 582 (V)	752 (H) X 582 (V)	752 (H) X 582 (V)
Horizontal Resolution			
NTSC	>540 TV Lines	540 TV Lines	>470 TV Lines
PAL	>540 TV Lines	540 TV Lines	>460 TV Lines
Lens	f/1.4 (focal length, 3.4~119 mm)	f/1.6 (focal length, 3.6~82.8 mm)	f/1.6 (focal length 4~88 mm)
Zoom	35X optical, 12X digital	23X optical, 12X digital	22X optical, 12X digital
Zoom Speed (optical range)	3.2/4.6/6.6 seconds	2.9/4.2/5.8 seconds	2.4/3.9/6.3 seconds
Horizontal Angle of view	55.8° at 3.4 mm wide zoom; 1.7° at 119 mm telephoto zoom	54° at 3.6 mm wide zoom; 2.5° at 82.8 mm telephoto zoom	47° at 4.0 mm wide zoom; 2.2° at 88 mm telephoto zoom
Focus	Automatic with manual override	Automatic with manual override	Automatic with manual override
Maximum Sensitivity at 35 IRE NTSC/EIA	0.55 lux at 1/60 sec (color) 0.063 lux at 1/4 sec (color) 0.00018 lux at 1/2 sec (B-W)	0.025 lux at 1/2 sec (color) 0.1 lux at 1/60 sec (B-W) 0.004 lux at 1/2 sec (B-W)	0.02 lux at 1/2 sec shutter
PAL/CCIR	0.55 lux at 1/50 sec (color) 0.063 lux at 1/3 sec (color) 0.00018 lux at 1/1.5 sec (B-W)	0.025 lux at 1/1.5 sec (color) 0.1 lux at 1/50 sec (B-W) 0.004 lux at 1/1.5 sec (B-W)	0.02 lux at 1/1.5 sec shutter
Sync System	Internal/AC line lock, phase adjustable using remote control, V-Sync	Internal/AC line lock, phase adjustable using remote control, V-Sync	Internal/AC line lock, phase adjustable using remote control, V-Sync
White Balance	Automatic with manual override	Automatic with manual override	Automatic with manual override
Shutter Speed	Automatic (electronic iris)/Manual	Automatic (electronic iris)/Manual	Automatic (electronic iris)/Manual
NTSC	1/2 ~1/30,000	1/2 ~1/30,000	1/2 ~1/30,000
PAL	1/1.5 ~1/30,000	1/1.5 ~1/30,000	1/1.5 ~1/30,000
Iris Control	Automatic Iris Control with manual override	Automatic Iris Control with manual override	Automatic Iris Control with manual override
Gain Control	Automatic/OFF	Automatic/OFF	Automatic/OFF
Video Output	1 Vp-p, 75 ohms	1 Vp-p, 75 ohms	1 Vp-p, 75 ohms
Video Signal to Noise	>50 dB	>50 dB	>50 dB
Wide Dynamic Range	128X	80X	—
Electronic Image Stabilization	Integrated	—	—
Image Enhancement	Integrated	—	—

# TECHNICAL SPECIFICATIONS

## DOME DRIVE FEATURES

- 256 Presets
- $\pm 0.1^\circ$  Preset Accuracy
- Electronic Image Stabilization (35X model)
- Image Enhancement (35X model)
- Multilingual Menus (English, Spanish, Portuguese, Italian, French, German, Russian, Polish, Turkish, and Czech)
- RJ-45 Data Port for Software Update and Setup
- On-Screen Compass, Tilt, and Zoom Display
- 400°/sec Pan Preset Speed and 200°/sec Tilt Preset Speed
- Rotating Discreet Liner with Sealed Fixed Bubble
- Window Blanking: Up to 8, Four-Sided, User-Defined Shapes
- 8 Zones (programmable in size) Can Be Labeled with up to 20 Characters Each or Set to Output Blank Video
- 7 Alarm Inputs
- 1 Auxiliary (Form C) Relay Output and 1 Open Collector Auxiliary Output (can be alternately programmed to operate upon alarm)
- Programmable Locations of Labels and On-Screen Displays
- Action on Alarm: Alarms Can Be Individually Programmed for 3 Priority Levels, to Initiate a Stored Pattern, or to Go to an Associated Preset When Received
- Resume After Alarm: Allows the Dome to Return to a Previously Programmed State After Alarm Acknowledgement or to its Previous Position Before Alarm
- Multiple Park and Power-Up Action
- Patterns: Up to 8, On-Screen, User-Defined Programmable Patterns; Includes Pan, Tilt, Zoom, and Preset Functions
- Proportional Pan/Tilt: Continually Decreases Pan/Tilt Speeds in Proportion to Depth of Zoom
- Variable Scan Speed: Scan Speed Can Be Programmable Between 1 to 40°/sec
- Pan Motion Allows 0.1 to 150°/sec Pan Speed
- Programmable Limit Stops for Auto/Random/Frame Scan Modes
- Autosensing Protocol (Coaxitron®, RS-422 P and D); Accepts Competitive Control Protocol with Optional Translator Card
- Digital Position and Zoom Control and Feedback through D Protocol
- Built-in Menu System for Setup of Programmable Functions
- "Auto Flip" Rotates Dome 180° at Bottom of Tilt Travel
- Programmable Zoom Speeds

### WINDOW BLANKING

Window blanking allows a user to program up to eight, four-sided, user-defined areas that cannot be viewed by the operator of the dome system. A blanked area will move with pan and tilt functions and automatically adjust in size as the lens zooms telephoto and wide.



BEFORE



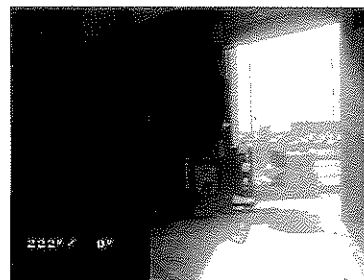
AFTER

### WIDE DYNAMIC RANGE

The Wide Dynamic Range (WDR) setting balances the brightest and darkest sections of a scene to produce a picture that provides more detail.



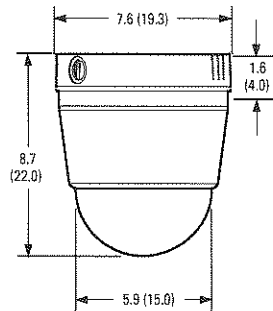
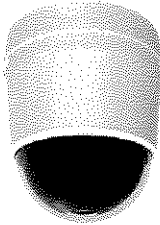
BEFORE



AFTER

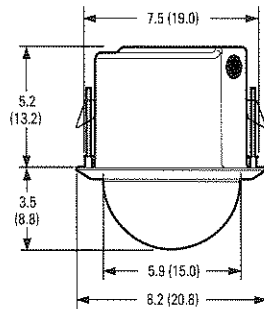
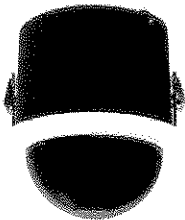
# TECHNICAL SPECIFICATIONS

## BACK BOX FEATURES



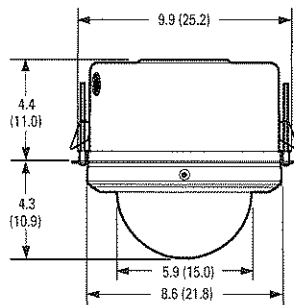
### Surface Mount (Indoor)

- Built-in Memory Stores Camera/Dome Settings
- Available in Black or White Finish
- Quick Disconnect to Dome Drive
- Injection-Molded Plastic
- Integrated Passive UTP



### In-Ceiling (Indoor)

- Built-in Memory Stores Camera/Dome Settings
- Single Back Box for Suspended or Hard Ceiling Applications
- Requires 5.25-Inch Space Above Ceiling and 3.25 Inches Below
- Minimum Ceiling Thickness 0.5-Inch; Maximum 1.75 Inches
- Quick Disconnect to Dome Drive
- Aluminum Construction
- Suitable for Use in Environmental Air Handling Spaces
- Integrated Passive UTP

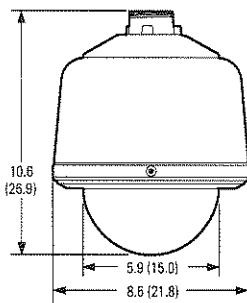


### Environmental In-Ceiling

- Built-in Memory Stores Camera/Dome Settings
- Single Back Box for Hard Ceiling Applications
- Requires 4.4-Inch Space Above Ceiling and 4.3 Inches Below
- Includes Heater and Fan
- Minimum Ceiling Thickness 0.5-Inch; Maximum 1.75 Inches
- Quick Disconnect to Dome Drive
- Aluminum Construction
- Integrated Passive UTP



(ENVIRONMENTAL DOME  
WITH SUN SHROUD SHOWN)



NOTE: VALUES IN PARENTHESES ARE CENTIMETERS;  
ALL OTHERS ARE INCHES.

### Standard and Environmental Pendant

- Standard and Environmental Models
- Built-in Memory Stores Camera/Dome Settings
- Standard Pendant Available in Black or Gray Finish; Environmental Pendant Gray Finish Only
- Quick Disconnect to Dome Drive
- Aluminum Construction
- Environmental Model Includes Sun Shield, Fan, and Heater
- Integrated Passive UTP

# TECHNICAL SPECIFICATIONS

## MECHANICAL *(Dome Drive Only)*

Pan Movement	360° continuous pan rotation
Vertical Tilt	Unobstructed +2° to -92°
Manual Pan/Tilt Speeds	
Pan	0.1° to 80°/sec manual operation, 150°/sec Turbo
Tilt	0.1° to 40°/sec manual operation
Preset Speeds	
Pan	400°/sec
Tilt	200°/sec
	For variable-speed operation an appropriate controller is required (with nonvariable speed control, Spectra IV SE pan/tilt speed is 20°/sec)

## ELECTRICAL

Input Voltage	18 to 32 VAC; 24 VAC nominal 22 to 27 VDC; 24 VDC nominal
Input Power	
24 VAC	23 VA nominal (without heater); 73 VA nominal (with heater)
24 VDC	0.7 A nominal (without heater); 3 A nominal (with heater)
Fuse	1.25 A
Auxiliary Outputs	2
Alarm Inputs	7

## CERTIFICATIONS/RATINGS/PATENTS

- CE, Class B
- FCC, Class B
- UL/cUL Listed
- C-Tick
- S Mark for Argentina
- GOST
- U.S. Patents 5,931,432; 6,793,415 B2; 6,802,656 B2; 6,821,222 B2;  
7,161,615 B2

Meets the following standards:

- NEMA Type 4X, IP66 when installed properly  
(BB4-F-E, BB4-PB, BB4-PG, and BB4-PG-E)
- NEMA Type 1, IP40 (BB4-SMW, BB4-SMB and BB4-F)

## GENERAL

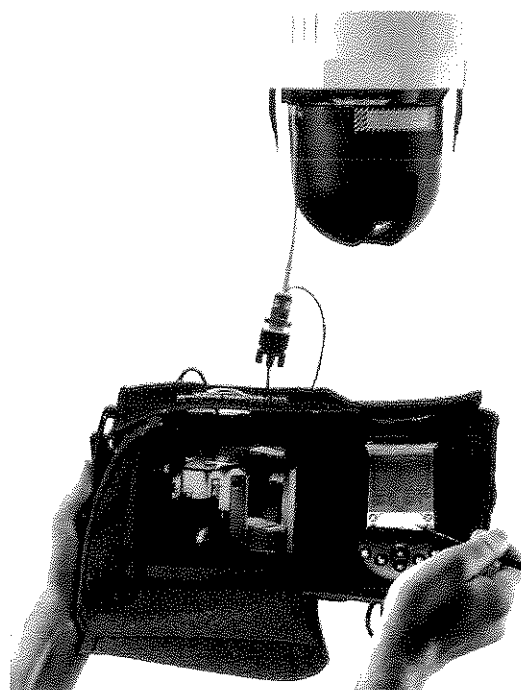
Construction		
Back Box		
Surface Mount	Plastic	
In-Ceiling	Aluminum	
Pendant	Aluminum	
Dome Drive	Aluminum, thermo plastic	
Bubble	Acrylic	
Light Attenuation		
Smoked	f/0.5 light loss	
Clear	Zero light loss	
Chrome	f/2.0 light loss	
Gold	f/2.0 light loss	
Cable Entry (Back Box)		
In-Ceiling and		
Surface Mount	0.75-inch conduit fitting	
Pendant	Through 1.5-inch NPT pendant mount	
Weight (approximate)	<u>Unit</u>	<u>Shipping</u>
Back Box		
Surface Mount	0.7 lb (0.32 kg)	2 lb (0.90 kg)
In-Ceiling	1.5 lb (0.68 kg)	2 lb (0.90 kg)
Environmental		
In-Ceiling	2.1 lb (0.95 kg)	3 lb (1.36 kg)
Standard Pendant	2.4 lb (1.09 kg)	4 lb (1.81 kg)
Environmental Pendant	3.5 lb (1.59 kg)	5 lb (2.27 kg)
Dome Drive	3.3 lb (1.48 kg)	5 lb (2.27 kg)
Lower Dome		
Surface Mount	0.4 lb (0.18 kg)	1 lb (0.45 kg)
In-Ceiling	0.2 lb (0.09 kg)	1 lb (0.45 kg)
Pendant and		
Environmental		
In-Ceiling	0.6 lb (0.27 kg)	2 lb (0.90 kg)
Environment		
Surface Mount	Indoor	
In-Ceiling	Indoor	
Environmental In-Ceiling	Outdoor	
Pendant, Standard		
and Environmental	Indoor/outdoor	
Operating Temperature		
Surface Mount and		
Indoor In-Ceiling	32° to 122°F (0° to 50°C)	
Standard Pendant	(Assumes no wind chill factor)	
Maximum	113°F (45°C) absolute maximum; 95°F (35°C) sustained maximum	
Minimum	25°F (-4°C) sustained minimum	
Environmental		
In-Ceiling and		
Environmental Pendant	(Assumes no wind chill factor)	
Maximum	140°F (60°C) absolute maximum; 122°F (50°C) sustained maximum	
Minimum	-60°F (-51°C) absolute minimum; prevents icing at sustained minimum of -50°F (-45°C); de-ices 0.1 inch (2.5 mm) within 3 hours after power-up	
Effective Projected		
Area (EPA)	20.5 square inches (without mount)	
	47 square inches (with IWM Series mount)	

## RELATED PRODUCTS

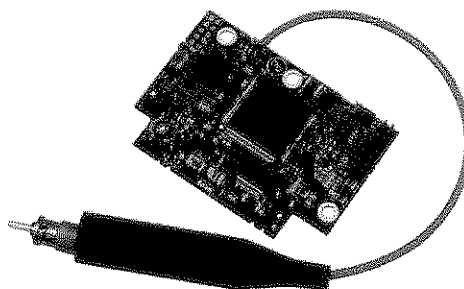
### OPTIONAL ACCESSORIES

DD5-FM	Fixed camera mount adapter. Interchangeable with all Spectra IV dome drives.
IPS-RMK	Remote monitor kit. Stand-alone kit consisting of a 5.6-inch TFT-LCD monitor, Palm™ OS compatible handheld, cables and carrying case. Allows viewing of camera video, local PTZ control, system setup, and system software upgrades at any installed dome.
IPS-CABLE	Remote monitor cable and software kit consisting of the Spectra IV remote monitor interface cable and necessary software for use with a PC (Windows® 95, 98, Me, 2000), Palm™ OS compatible handheld or iPaq™ Series Pocket PC. Refer to <a href="http://www.pelco.com">www.pelco.com</a> for a list of compatible devices.
IPS-RDPE-2*	Remote data port. 24 VAC, wall/pole mount video/data breakout box. Allows ground-level control/programming and Spectra IV OS software upgrades when used with the IPS-RMK or IPS-CABLE.
TXB Series*	Translator boards for AD™ Manchester, Hernis, Bosch® (Philips, Burle), Sensormatic®, Vicon™, TASS, and NTCIP protocols.
TXB-IP Series*	Communication module that allows you to control and monitor Spectra IV dome systems over an IP network (in-ceiling and pendant models only).
FS85011A*	Fiber transmitter sends one unidirectional composite video channel and one bidirectional data channel over one multimode or single-mode fiber optical cable.

\*If TXB or FS85011A boards are installed, remote upload of system software will not be possible.



IPS-RMK REMOTE MONITOR KIT



FS85011A FIBER MODULE



## RELATED PRODUCTS

### RECOMMENDED MOUNTS

#### Surface Mount Domes

PASMB	Pendant adapter for surface mount dome, black
SD53SM-P	2' x 2' drop ceiling panel for BB4-SMW and BB4T-SMW series back boxes; replaces 2' x 2' ceiling tile; aluminum construction

#### In-Ceiling Domes

SD5-P	2' x 2' drop ceiling panel, aluminum construction; replaces 2' x 2' ceiling tile
SCA1	Support rails for BB4-F; for use in ceiling tile applications

#### Pendant Domes

BB5-PCA-BK <sup>†</sup>	Pendant conduit adapter, black
BB5-PCA-GY <sup>†</sup>	Pendant conduit adapter, gray
IWM Series	Wall mount, with or without integral 24 VAC, 100 VA transformer; black or gray finish; can be adapted for corner, parapet or pole applications
MRCA	Ceiling mount, black
MRWA	Wall mount, black
PP4348	Parapet roof mount
PP350/PP351	Parapet wall/roof mount
SWM Series	Compact wall mount, black or gray finish; can be adapted for corner or pole applications

<sup>†</sup> Not suitable for use with heavy-duty, pressurized, or stainless steel Spectra domes.

### RECOMMENDED POWER SUPPLIES

MCS Series	Indoor, 24 VAC power supply
MCS*E Series	Indoor, 24 VAC power supply
WCS Series	Outdoor, 24 VAC power supply

*Refer to individual power supply specifications for more information.*

# SYSTEM AND COMPONENT MODELS

## SYSTEM MODEL NUMBERS

Type	Back Box Color	Lower Dome	35X Day/Night*	23X Day/Night*	22X Color*
Surface Mount	White	Smoked	SD435-SMW-0	SD4CBW-SMW-0	SD4C22-SMW-0
		Clear	SD435-SMW-1	SD4CBW-SMW-1	SD4C22-SMW-1
		Chrome	SD435-SMW-2	SD4CBW-SMW-2	SD4C22-SMW-2
		Gold	SD435-SMW-3	SD4CBW-SMW-3	SD4C22-SMW-3
	Black	Smoked	SD435-SMB-0	SD4CBW-SMB-0	SD4C22-SMB-0
		Clear	SD435-SMB-1	SD4CBW-SMB-1	SD4C22-SMB-1
		Chrome	SD435-SMB-2	SD4CBW-SMB-2	SD4C22-SMB-2
		Gold	SD435-SMB-3	SD4CBW-SMB-3	SD4C22-SMB-3
In-Ceiling, Indoor	Black	Smoked	SD435-F0	SD4CBW-F0	SD4C22-F0
		Clear	SD435-F1	SD4CBW-F1	SD4C22-F1
		Chrome	SD435-F2	SD4CBW-F2	SD4C22-F2
		Gold	SD435-F3	SD4CBW-F3	SD4C22-F3
In-Ceiling, Environmental†	Black	Smoked	SD435-F-E0	SD4CBW-F-E0	SD4C22-F-E0
		Clear	SD435-F-E1	SD4CBW-F-E1	SD4C22-F-E1
Pendant, Standard	Black	Smoked	SD435-PB-0	SD4CBW-PB-0	SD4C22-PB-0
		Clear	SD435-PB-1	SD4CBW-PB-1	SD4C22-PB-1
		Chrome	SD435-PB-2	SD4CBW-PB-2	SD4C22-PB-2
		Gold	SD435-PB-3	SD4CBW-PB-3	SD4C22-PB-3
	Lt. Gray	Smoked	SD435-PG-0	SD4CBW-PG-0	SD4C22-PG-0
		Clear	SD435-PG-1	SD4CBW-PG-1	SD4C22-PG-1
		Chrome	SD435-PG-2	SD4CBW-PG-2	SD4C22-PG-2
		Gold	SD435-PG-3	SD4CBW-PG-3	SD4C22-PG-3
Pendant, Environmental†	Lt. Gray	Smoked	SD435-PG-E0	SD4CBW-PG-E0	SD4C22-PG-E0
		Clear	SD435-PG-E1	SD4CBW-PG-E1	SD4C22-PG-E1

## COMPONENT MODEL NUMBERS

Back Box	Dome Drive*	Lower Dome†
BB4-SMB Surface mount, black BB4-SMW Surface mount, white BB4-F In-ceiling, black BB4-F-E In-ceiling, black, environmental BB4-PB Pendant mount, black, standard BB4-PG Pendant mount, gray, standard BB4-PG-E Pendant mount, gray, environmental	DD4C22 Color (NTSC) camera (22X) DD4CBW23 Day/Night (NTSC) camera (23X) DD4CBW35 Day/Night (NTSC) camera (35X) DD5-FM Removable, fixed mount bracket only (camera and lens not included). Interchangeable with all Spectra IV dome drives.	LD53SMB-0 Smoked, surface, black LD53SMB-1 Clear, surface, black LD53SMB-2 Chrome, surface, black LD53SMB-3 Gold, surface, black LD53SMW-0 Smoked, surface, white LD53SMW-1 Clear, surface, white LD53SMW-2 Chrome, surface, white LD53SMW-3 Gold, surface, white LD5F-0 Smoked, in-ceiling LD5F-1 Clear, in-ceiling LD5F-2 Chrome, in-ceiling LD5F-3 Gold, in-ceiling LD53PB-0 Smoked, pendant, black LD53PB-1 Clear, pendant, black LD53PB-2 Chrome, pendant, black‡ LD53PB-3 Gold, pendant, black‡
<b>Notes:</b> To order a fixed mount dome system refer to the component models above and select one each of the following: back box (BB4-F), dome drive (DD5-FM), plus choice of lower dome (LD5F-0, LD5F-1, LD5F-2 or LD5F-3). For environmental applications, you must order an environmental back box (BB4-F-E) or (BB4-PG-E). DD5-FM is ideal for use with Pelco's C10DN-6, C10DN-6X, C10CH-6, C10CH-6X, CCC1390H-6, and CCC1390H-6X cameras with selected Pelco lenses.		

\*For PAL and CCIR models add "-X" suffix to part number. (Example: SD435-SMW-0-X)

†Environmental dome systems include a heater, fan, and the environmental pendant also includes a sun shield.

‡Use the pendant lower domes with the environmental in-ceiling and environmental pendant back boxes.

§Not recommended for outdoor use due to possible light reflections.

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Product specifications and availability subject to change without notice.

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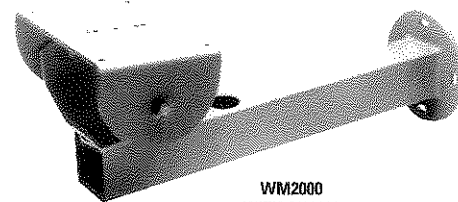
www.pelco.com

## WM2000 Mount

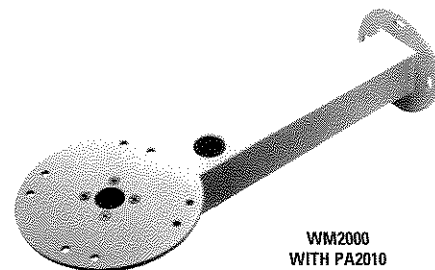
### WALL MOUNT, HEAVY DUTY, PAN/TILT AND ENCLOSURE

#### Product Features

- Wall Mounting
- Can Be Used in Corner, Pole, and Parapet Applications When Used with Appropriate Mount Adapter
- Supports up to 75 lb (34 kg); 150 lb (68 kg) When Used with ST1 Strut
- For Use with Medium- and Heavy-Duty Pan/Tilts or Enclosures
- Cable Feedthrough Holes (Top and End of Arm); Removable Plastic Cap on Front End



WM2000  
WITH AH2000



WM2000  
WITH PA2010

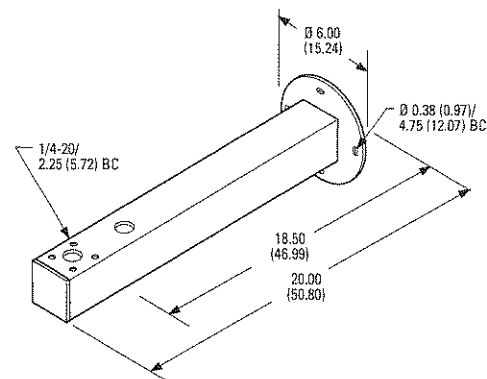
The **WM2000** is a universal wall mount designed for use with medium- and heavy-duty pan/tilts or enclosures. Constructed from aluminum, the **WM2000** will safely support up to 75 lb (34 kg). When used with the ST1 support strut, the maximum load is increased to 150 lb (68 kg). Optional mount adapters are available for corner, pole, and parapet applications.

The **WM2000** can be adapted for use with enclosures when used with the AH1000 or AH2000 adjustable head. The AH1000 and AH2000 allow 360-degree positioning of the enclosure; the AH1000 is for use with EH4700 Series enclosures, and the AH2000 is for use with EH5700, EH8106, and EHX\*E Series enclosures.

In certain applications, the AH1000 or AH2000 can be used alone.

When mounting a pan/tilt on the WM2000, the appropriate adapter (PA2000/PA2010) must be used (*refer to Related Products*).

Adapters are available for corner (CM100), pole (PA102), and parapet (PP100) applications (*refer to Optional Adapters*).



NOTE: VALUES IN PARENTHESES ARE CENTIMETERS; ALL OTHERS ARE INCHES.

WM2000



C266 / REVISED 7-31-08



International Standards  
Organization Registered Firm;  
ISO 9001 Quality System



# MODELS/TECHNICAL SPECIFICATIONS

## WM2000 and Related Products

### MODEL

WM2000 Universal wall mount for pan/tilts and enclosures

### RELATED PRODUCTS

**AH1000** Manually adjustable pan/tilt head for use with EH4700 Series enclosures  
**AH2000** Manually adjustable pan/tilt head for use with EH5700, EH8106, and EHX\*E Series enclosures  
**PA2000** Mount adapter for PT520P, PT520SL, PT570P, PT570-24P, and PT680-24P pan/tilts  
**PA2010** Mount adapter for PT1250DC, PT1250P, PT1280P, PT1280SL, and PT1260EX heavy duty pan/tilts  
**ST1** Support strut; for use with WM2000. Increases maximum load to 150 lb (68 kg)

### OPTIONAL ADAPTERS

**CM100** Corner mount adapter for WM2000 mount  
**PA102** Pole mount adapter for WM2000 mount. Straps fit 3-inch (7.62 cm) to 8-inch (20.32 cm) diameter pole.  
**PP100** Parapet mount for WM2000 mount  
**SCM100** Corner mount adapter for ST1 strut  
**SPA102** Pole mount adapter for ST1 strut. Straps fit 3-inch (7.62 cm) to 8-inch (20.32 cm) diameter pole.

### MECHANICAL

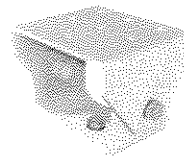
**Pan Adjustment** 360° (models AH1000 and AH2000 only)  
**Tilt Adjustment** ±90° (models AH1000 and AH2000 only)  
**Mounting Method** Secure to a solid surface with fasteners of a suitable size (not supplied)

### GENERAL

**Effective Projected Area (EPA)**  
 WM2000 ~60 square inches  
 AH1000 ~21 square inches  
 AH2000 ~7 square inches  
 ST1 ~30 square inches  
**Construction** Aluminum  
**Finish** Gray polyester powder coat  
**Maximum Load** 75 lb (34 kg); 150 lb (68 kg) when used with ST1 strut  
**Unit Weight**  
 AH1000 0.88 lb (0.40 kg)  
 AH2000 2.92 lb (1.32 kg)  
 PA2000 0.63 lb (0.28 kg)  
 PA2010 1.28 lb (0.58 kg)  
 ST1 1.34 lb (0.61 kg)  
 WM2000 3.07 lb (1.39 kg)  
**Shipping Weight**  
 AH1000 2 lb (0.90 kg)  
 AH2000 4 lb (1.81 kg)  
 PA2000 1 lb (0.45 kg)  
 PA2010 2 lb (0.90 kg)  
 ST1 3 lb (1.35 kg)  
 WM2000 5 lb (2.26 kg)

### CERTIFICATIONS

- UL Listed



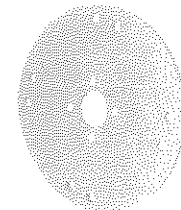
AH1000



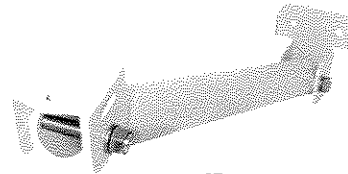
AH2000



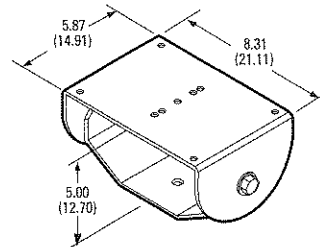
PA2000



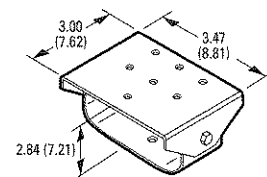
PA2010



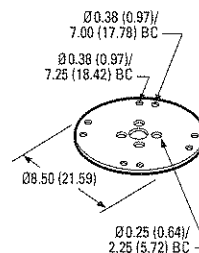
ST1



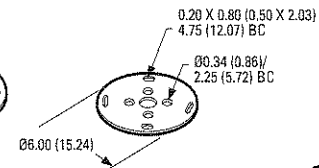
AH2000



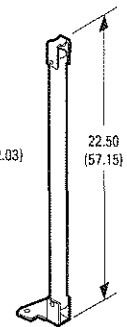
AH1000



PA2010



PA2000



ST1

NOTE: VALUES IN PARENTHESES ARE CENTIMETERS; ALL OTHERS ARE INCHES.

# MODELS/TECHNICAL SPECIFICATIONS

## Corner Adapters

### MODELS

CM100	Corner mount adapter for WM2000 wall mount
SCM100	Corner mount adapter for ST1 support strut

### MECHANICAL

#### Adapter Mounting

Four 5/16-inch studs provided for mounting the WM2000 to CM100 (nuts and split lock washers supplied). Three 5/16-inch studs provided for mounting ST1 strut to the SCM100 (nuts and split lock washers supplied).

#### Suggested

#### Mounting Method

Secure to solid mounting surface with fasteners of a suitable size. (Fasteners are not supplied.)

CM100

8 required

SCM100

4 required

#### Maximum Load

CM100

75 lb (34 kg)

CM100 with SCM100

150 lb (68 kg)

### GENERAL

#### Construction

0.125-inch (3.17 mm) thick, 5052H32 aluminum

#### Finish

Gray polyester powder coat

#### Unit Weight

CM100

3 lb (1.4 kg)

SCM100

1.5 lb (0.6 kg)

#### Shipping Weight

CM100

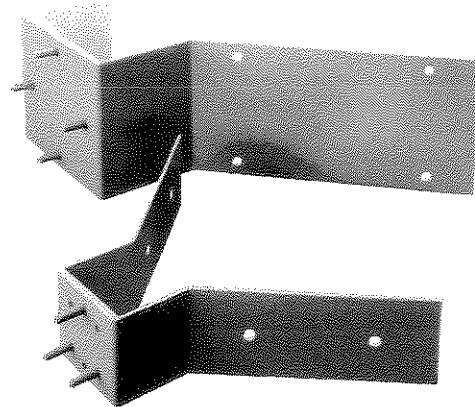
5 lb (2.3 kg)

SCM100

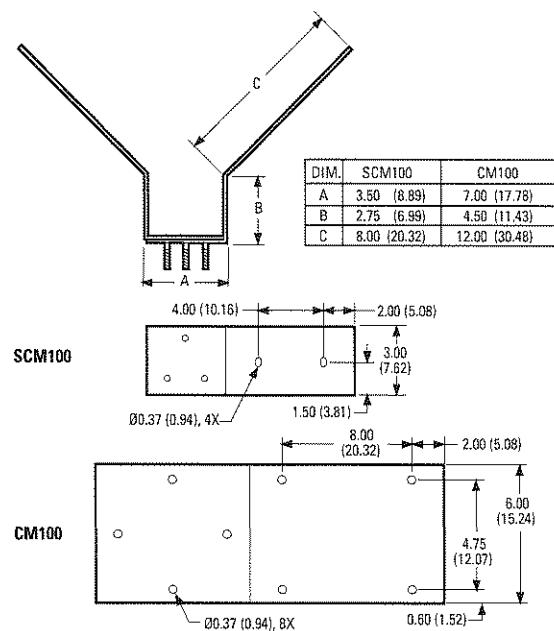
2 lb (0.9 kg)

### CERTIFICATIONS

- UL Listed



CM100 (TOP) AND SCMP100 (BOTTOM)



NOTE: VALUES IN PARENTHESES ARE CENTIMETERS;  
ALL OTHERS ARE INCHES.

# MODELS/TECHNICAL SPECIFICATIONS

## Pole Adapters

### MODELS

PA102	Pole mount adapter for WM2000
SPA102	Pole mount adapter for ST1 strut

### GENERAL

Construction	Aluminum, 0.125-inch (3.17 mm) thick
Mount	Stainless steel
PEM Studs	
Adapter Mounting	
PA102	4, 5/16-inch studs
SPA102	3, 1/4-inch studs (Nuts to secure mount to adapter are not supplied)
Suggested Mounting Method	Slots are provided for mounting straps; stainless steel straps supplied. Straps fit 3-inch (7.62 cm) to 8-inch (20.32 cm) diameter pole.
Maximum Load	Will support maximum load specified for WM2000 mount: 75 lb (33.97 kg); 150 lb (67.95 kg) when used with ST1 strut and SPA102
Unit Weight	
PA102	3.35 lb (1.52 kg)
SPA102	1.83 lb (0.83 kg)
Shipping Weight	
PA102	5 lb (2.27 kg)
SPA102	3 lb (1.36 kg)

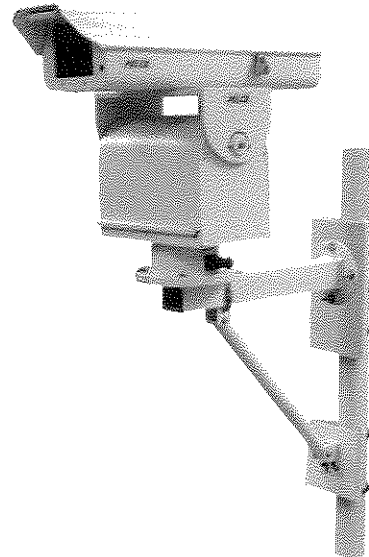
### CERTIFICATIONS

- UL Listed

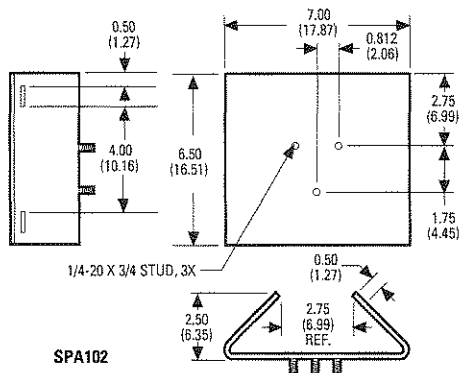
## Parapet Adapters

### MODEL

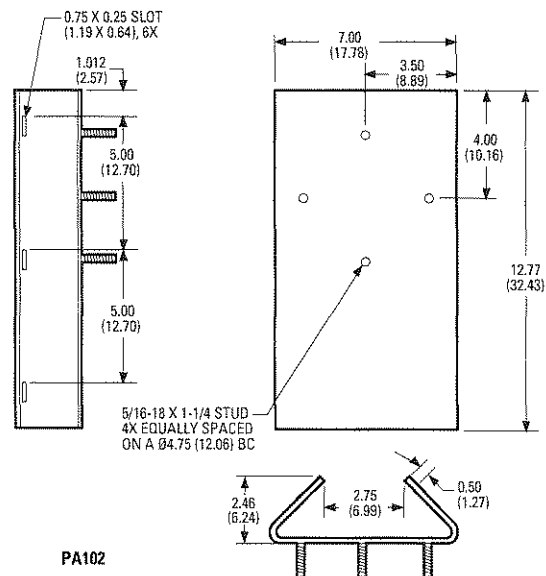
PP100	Parapet adapter mount for use with WM2000 wall mount. Refer to PP100 specification sheet (C245) for additional information.
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PA102 POLE ADAPTER SHOWN WITH WM2000 MOUNT AND SPA102 STRUT ADAPTER WITH ST1 STRUT



SPA102



PA102

NOTE: VALUES IN PARENTHESES ARE CENTIMETERS; ALL OTHERS ARE INCHES.



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